

SIR GEORGE WILLIAMS COLLEGE



ANNOUNCEMENT

DAY AND EVENING DIVISIONS

1953-54

**FACULTIES OF ARTS, SCIENCE,
AND COMMERCE**

Sir George Williams College

OF THE
YOUNG MEN'S CHRISTIAN ASSOCIATION OF MONTREAL

THE FACULTIES OF ARTS, SCIENCE, and COMMERCE

ACADEMIC YEAR 1953-54

INDEX

The alphabetical index at the back of this announcement will aid you in finding quickly the information in which you are particularly interested.

1441 Drummond Street, Montreal, Canada

HISTORICAL STATEMENT

The present Faculties of Arts, Science, and Commerce of Sir George Williams College developed from the formal educational work of the Montreal Young Men's Christian Association. This work, inaugurated in 1873, took the early form of unit evening courses in vocational and general educational subjects, later co-ordinated into the system known as the Y.M.C.A. Schools.

● In 1920, the Evening High School was inaugurated, and in 1926 the name Sir George Williams College was adopted to designate, from that time forward, the expanding formal educational programme of the Young Men's Christian Association in Montreal. (Sir George Williams was the founder of the Y.M.C.A. in London, June 6, 1844, seven years before it was established in Canada.) In 1926 also, the college was made co-educational.

● In 1928 the Association held a building campaign for \$1,500,000, part of which sum was to provide enlarged facilities for the work of the College. ● In 1929, the College programme was extended to include First Year of Arts, Science, Commerce and pre-Engineering. ● In 1930 the College began occupation of an enlarged plant and equipment, which has since been expanded repeatedly to include four building annexes. ● In 1931, the Junior College was organized, offering two full years of College work in Arts, Science and Commerce, leading to the Diploma of Associate. ● In 1932, day courses were inaugurated in the College, providing Pre-Professional and Associate programmes of study in the same three fields. ● In 1934, the two-year programmes in Arts, Science and Commerce were expanded to four-year curricula culminating in the award of the Bachelor's Degree. The members of the first class were graduated in 1936, and by 1952 some 1624 degrees had been presented.

● Throughout this period the College had been conducted under the terms of the charter of the Montreal Young Men's Christian Association (consolidation, June 1888.) In March, 1948, however, the College was granted a specific Charter by the Provincial Legislature, establishing it a body corporate and politic, for the purpose of conducting a college or university in the Province of Quebec.

TABLE OF CONTENTS

	Page
Historical Statement.....	2
Calendar.....	4, 5
The Corporation.....	7
Advisory Board.....	8
Board of Governors.....	9
Officers of Administration.....	9
Officers of Instruction.....	10-16
General Statement.....	17
Degrees, Diplomas and Certificates.....	17
Aims of the College.....	18
Student Guidance.....	19
Evening Division.....	20
Length of Courses.....	21
Extra-curricular Activities.....	21
Facilities of the College.....	22
Classification of Students.....	24
Admission.....	24
Sir George Williams High School.....	25
Advanced Standing.....	26
Registration.....	30
College Office.....	31
Fees.....	31, 32
Withdrawals.....	33
Scholarships and Prizes.....	34, 35
Curricula in Arts, Science and Commerce.....	38, 39
Selection of Courses.....	41
Major Programmes.....	42
Special Programmes of Study.....	47
Summary of Regulations.....	53
Outlines of Subjects.....	55
Natural Sciences Division.....	56
Humanities Division.....	69
Social Sciences Division.....	82
Commerce Division.....	95
Index.....	104
Announcements of the College and Schools.....	Back
Application Form.....	Inside back cover

CALENDAR

Academic Year 1953-54

1953

WEDNESDAY, JUNE 3.	Summer term begins in Evening Division.
WEDNESDAY, JULY 1.	Dominion Day. No lectures.
FRIDAY, JULY 31.	Last day for receiving applications to write supplemental examinations.
TUESDAY, SEPTEMBER 1.	Summer term final examinations begin.
MONDAY, SEPTEMBER 7.	Labour Day—College closed.
TUESDAY, SEPTEMBER 8.	Registration for all students in the Day Division commences. Priority Registration commences for former students in the Evening Division.
MONDAY, SEPTEMBER 14.	Registration commences for new students in the Evening Division. Open Registration for all students.
FRIDAY, SEPTEMBER 25.	Official Registration closes. Late Registration fee is charged for all registrations after this date.
THURSDAY, OCTOBER 1.	First term begins in Day and Evening Divisions. Late registration begins.
OCTOBER	Thanksgiving Day. No lectures.
WEDNESDAY, NOVEMBER 11.	Remembrance Day. No lectures in the Day Division.
FRIDAY, DECEMBER 18.	Last day of classes before Christmas vacation, Evening Division.
SATURDAY, DECEMBER 19.	Last day of classes before Christmas vacation, Day Division.

CALENDAR

Academic Year 1953-54

1954

MONDAY, JANUARY 4.	Classes re-open in Day and Evening Divisions after Christmas vacations.
MONDAY, JANUARY 18.	First term examinations begin in Day Division.
MONDAY, JANUARY 25.	First term examinations begin in Evening Division.
MONDAY, FEBRUARY 1.	Second term begins in both divisions.
FRIDAY, APRIL 16.	Good Friday. No lectures.
SATURDAY, APRIL 17.	No lectures.
MONDAY, APRIL 19.	Easter Monday. No lectures in the Day Division.
FRIDAY, APRIL 30.	Last day of classes in Day and Evening Divisions.
MONDAY, MAY 3.	Final examinations begin in Day and Evening Divisions.
FRIDAY, JUNE 4.	Convocation.

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- Margaret Florence Broadhurst, B.A. (Queen's), B.L.S. (McGill),
Librarian
- Louisa Fair, M.A. (McGill), Diploma of Library Science (McGill),
Assistant Librarian
- Olivia F. Holmes, Diploma of Library Science (Pratt),
Library Assistant
- Eleanor Smith, B.A., B.L.S. (McGill),
Assistant Librarian
- Mary Walsh, B.A. (Tor.), B.L.S. (McGill),
Assistant Librarian

In Memoriam

Joseph Peter Dubsky
Miriam Ramsay Holland

General Statement

Sir George Williams College is a corporation chartered by the Provincial Legislature to conduct a "university within the Province of Quebec," and empowered by that Charter to grant the appropriate degrees, diplomas and certificates.

Its resources are devoted to the operation of three undergraduate Faculties, namely Arts, Science, and Commerce, each with its own curricular requirements and its own degree. For purposes of the better integration of undergraduate life, and to give effect to the general educational philosophy of the College, there is a very close co-ordination between these three Faculties.

The purpose of the College, through its co-ordinated Faculties, is to provide general and pre-professional education for young men and women in both day and evening divisions. While general education is the primary aim of all its programmes of study, it does make provision for specialization in certain subject matter fields with a view to preparing either for future vocational competence or for admission to higher studies in other universities or professional faculties.

The three curricula, in Arts, in Science, and in Commerce, and the content of the various courses of study, are outlined in detail in later pages of this Announcement.

Degrees, Diplomas and Certificates

DEGREES OF BACHELOR. The degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Commerce are awarded upon successful completion of four-year courses of study in the Day Division of the College (Faculties of Arts, Science, and Commerce) or the equivalent in the Evening Division.

DIPLOMAS OF ASSOCIATE. For students who plan to spend less time in study beyond high school graduation than is required for a Bachelor's degree the College offers three two-year programmes (longer in the Evening Division) leading to the diplomas of Associate in Arts, Associate in Science, and Associate in Commerce. Work done in fulfilment of the requirements for the Associate's diploma is applicable, of course, for credit toward a degree.

DIPLOMA IN ASSOCIATION SCIENCE. This diploma is awarded to students training for the Y.M.C.A. secretaryship, for professional training taken concurrently with studies for the Bachelor's degree.

CERTIFICATE OF CREDIT. Students taking partial programmes, i.e., those who are following one or more subjects but are not proceeding to a degree or diploma, are awarded a Certificate of Credit in each subject upon completing the required work and passing the required examination, upon request to the Registrar.

Enrollment

The total enrollment of Sir George Williams College and the Sir George Williams Schools during the regular winter session of 1952-53 was 6,545 individual students. Of these, 3,550 were in the College (Faculties of Arts, Science, and Commerce), day and evening divisions. During the summer session, 1952, there were 1,897 individual students enrolled in the College and Schools. Of these, 1,058 were in the College.

Men and Women Students

The College is co-educational, women being admitted to all courses on the same basis as are men.

The Aims of the College

The fundamental educational philosophy of Sir George Williams College is that its chief concern shall be the development of persons, through the medium of formal education and its correlated activities. It is recognized that this is not accomplished by mere rote learning. While the subject matter of the curriculum is divided into "courses" for the sake of convenience in administration, the primary aim of the College is that students shall grow in character and personality as well as in those techniques and appreciations which may be required in full and satisfactory living. The units which go to make up such growth may be conveniently classified as attitudes, abilities, and skills. It is the development of these that the College endeavours to foster in its students.

This principle is not in the least opposed to good scholarship. On the contrary, scholarship can be sound only when it is vital, when it is a living process. For example, attitudes, or ways of feeling toward individuals, institutions, and other elements of one's environment, are as much a part of a person's growth as is the attainment of information, important though this may be.

Because of varying interests, aptitudes, and vocational aims, a modern educational institution must provide a wide range of educational experiences for its students. In the College these experiences, traditionally called the "curriculum", are divided into three broad areas of life, viz.: (a) the nature of the world in which we live (the Natural Sciences), (b) the nature of man and of the society of which he is a part (the Social Sciences), and (c) the cultural heritage of thought, language, and the arts which, though it reaches back to the dawn of history, is being continuously remade in our day (the Humanities). Believing that educated people should come into intimate contact with all of these areas of life, it is provided that the academic experience of every student should include work in each of these major fields. One attempt to accomplish this is the provision of the three exploratory "pandemic" courses. The emphasis placed upon the study of contemporary English literature and of modern writings in the fields of science, social science, and the arts is another

indication of this point of view. A fourth division of the College curriculum (Commerce), while distinctly practical and vocational in emphasis, is related in teaching and course content to the basic philosophy of the College, since that philosophy is based on the belief that there is no genuine conflict between the learning of skills and the development of persons, that if sound personal attitudes are to be developed they may be as readily developed in so-called "vocational" courses as in those that are more traditionally academic in nature. Students following the Commerce Curriculum are required to take a large part of their work in the other three major fields.

The members of the staff of Sir George Williams College are wholly devoted to the teaching and guidance of students. Contacts between faculty members and students are by no means confined to the classroom and, while students are encouraged to do independent and constructive work, staff members are always available for consultation.

Student Personnel Services

Education being considered the process of stimulating and guiding the growth of individual students, all of the incidentals of education—instructors, courses of study, textbooks, examinations—are considered valuable only in so far as they serve these ends. In addition to the fact that this concept permeates its academic work, the College has for many years maintained a programme of educational, vocational, and personal guidance for its students. While all instructors and members of the administrative staff are responsible for student guidance as a part of their duties, and while several of these members possess a background of experience in the techniques of such work, a trained psychologist, acting in the capacity of full-time Student Counsellor, is primarily responsible for the co-ordination and development of the student guidance programme.

Psychological Testing Program

All new students in the Day Division (freshmen and upperclassmen) are required, as part of the registration process, to complete a psychological testing program. This program is designed to collect information about the personalities and aptitudes of the students involved. Such information is subsequently used as a basis for academic, vocational, and personal counselling and guidance.

Guidance

In recognition of the varying interests, aptitudes, and vocational aims of its students, the College has for many years maintained a programme of educational and vocational guidance. Extensive use is made of methods for determining a student's aptitudes, abilities, interests, and other personality characteristics as a supplement to this service. Any interested student is encouraged to contact the Student Counsellor and his staff concerning his orientation to college

work, his problems involving study habits, the selection of suitable courses of study, and the choice of a vocation. The Counsellor is prepared to assist students with such problems at any time.

Guidance Library

A special reference library on psychological and vocational information is maintained as a supplement to these services. This library includes information on personal and industrial applications of psychology, various vocational fields, techniques of improving verbal skills, and many other topics. There is also an extensive section, known as the Careers Library, providing comprehensive up-to-date information on a wide variety of professional and business vocations.

Effective Reading

As a service to students whose problems stem from poor reading and study habits, the College offers a programme of training in effective reading. Designed to improve reading skill in all its aspects, the course consists of a series of 16 films, tachistoscopic training, and drill exercises for directing attention to comprehension and critical reading. This course is given each year.

Personal Counselling

It is not unusual that, during the time spent in gaining an education, a student may, at one point or another, be faced with a complex personal or emotional problem. Although these problems may not directly involve college studies, they may have a serious effect on them. Since, however, these events have a direct bearing on the development of the student as a person, and since this is of importance in the philosophy of Sir George Williams College, the College is prepared to offer whatever assistance it can to students with such problems. Both psychological and psychiatric aid can be provided.

Placement

In co-operation with the National Employment Service, the assistance of a full-time Placement Officer is provided for students of the College. Through his activities the full resources of the National Employment Service are made easily accessible to all students seeking employment. The Placement Officer is prepared to assist students and graduates in locating part-time, summer, or full-time employment.

Students and their parents are urged to take full advantage of these services.

Evening Division

For employed men and women who for financial or other reasons are unable to attend college by day the Evening Division of the College offers the same programmes and courses of study as are available in the Day Division.

The outlines of the various courses of study, on pages 56 to 103 of this Announcement, apply to both Day and Evening Divisions. The standard of achievement demanded of the students in the Evening Division is strictly that of the Day Division, the subject matter is the same and equal academic credit is allowed.

Partial course students also are enrolled in the Evening Division. These include all those who wish to enroll for single subjects at the college level without necessarily working toward a diploma or degree.

Length of Courses

DAY DIVISION. The time ordinarily required to complete the work required for a degree in the College is four years. During this time twenty-one full courses must be completed, as indicated on pages 38 to 41 where curricula are discussed. *Provided a proper sequence of courses is followed* the student may upon the completion of two years, or eleven full courses, be awarded the Diploma of Associate in Arts, in Science, or in Commerce, as the case may be. In certain cases arrangements may be made to complete the required number of courses for a degree or diploma over a longer period. However, the practice of taking partial courses is discouraged in the Day Division.

EVENING DIVISION. As in the Day Division the number of courses required for a degree is twenty-one and, for a diploma, eleven. The number of years required depends, in each case, upon the subjects chosen by the student and the amount of class work he is able to complete each year. In general, however, an efficient student may complete the work required for a degree in six or seven years. By attending classes in summer as well as winter sessions it is possible for evening division students to shorten the time required for a diploma or a degree.

Extra-curricular Activities

STUDENT ORGANIZATIONS. The College encourages and supports student activities and organizations in the belief that through such endeavours and associations much real education may accrue to the students concerned. A Student Council controls all activities of this nature, including athletics, study groups, social affairs, college newspaper ("The Georgian"), etc. Student societies in the day and evening division, respectively are known as the Students' Undergraduate Society and the Evening Undergraduate Society. Annual student society fees are to be found on pages 31, 32.

THE FINE ARTS. In order to enrich college life and to aid students in the experience and appreciation of beauty wherever it may be found, examples of fine painting from time to time are displayed, music appreciation hours are arranged and every available opportunity, curricular and extra-curricular, is realized by the College to further this aim.

STUDENT HEALTH PROGRAMME. An active programme of student athletics and health education is available to students in the day division, while more limited facilities are at the disposal of evening students.

WORLD SERVICE. As part of the world-wide movement of the Young Men's Christian Association, organized in about 70 countries in all parts of the world, the College participates each year in the support of the World Service Fund of the Association. This fund is used to assist the indigenous Y.M.C.A. movements in about 26 countries which require aid from the International Committee. Once each year a "World Service Week" is held in the College, during which students, staff, Board of Governors and other interested friends are given the opportunity of making a voluntary contribution in aid of this important work.

Responsibility of College for Accidents

While every reasonable precaution will be taken to prevent accidents, students are reminded that participation in athletics and other curricular or extra-curricular activities in the College is entirely at their own risk.

Graduates

ASSOCIATION OF ALUMNI. The Association of Alumni was organized by the first graduating classes of the College in 1937, to perpetuate the fellowship established in their years at the College, to preserve an interest in education, and to work extramurally for the welfare of the College. Each College undergraduate automatically becomes a member upon graduation, but upon subscribing to the Georgian Grad Fund (which has been set up by the Association to assist the College financially) becomes an active member and eligible for all the benefits of membership. The Association publishes a quarterly magazine—The Post Grad—which is sent to all members and any others interested in the College, and is always ready to give assistance or advice to any undergraduate or graduate.

FACILITIES OF THE COLLEGE

Sir George Williams College and the four Sir George Williams Schools occupy the second and third floors of the Drummond Street Y.M.C.A. building and adjacent annexes on Drummond and Stanley Streets. Accommodation is available for over 5,000 students in the various classes of the College and the Schools.

CHEMISTRY LABORATORIES. The main laboratory (I) accommodates 40 students, and laboratory II, for advanced work, accommodates 24 students. The tables are equipped with gas, water, and individual lockers which will accommodate more than 750 students. The main laboratory is equipped with A.C. and D.C. electricity. The six fume chambers are provided with shatter-proof glass doors and high velocity exhaust fans.

PHYSICS LABORATORIES. The main physics laboratory accommodates 24 students and is equipped for experiments in general physics. The adjoining electrical laboratory is provided with modern apparatus for study and experiments in magnetism, general electricity, radio, electrical communication, and sound reproduction, including a long range radio receiver and short wave transmitter. The advanced laboratory is equipped with modern apparatus for experiments in atomic physics (Geiger-counter, high speed scalar, X-ray equipment, etc.) optics (Quartz Spectrograph, interferometers, photographic equipment) and heat.

BIOLOGY LABORATORY. Housed in the Stanley St. Annex, this laboratory is equipped to accommodate 32 students. Compound microscopes are supplied for the student's individual use. The large collection of microscope slides covers the fields of botany, zoology, histology, and embryology. There is adequate, modern apparatus for experimental work in physiology. Other apparatus includes microtomes, constant temperature oven, microprojector, photomicrographic equipment, and both slide and motion picture projectors. In conjunction with the laboratory there is an extensive teaching museum of charts and models, preserved and mounted specimens, and skeletal preparations.

SCIENCE LECTURE ROOM. Science demonstration and popular lectures are provided for in this room. It is equipped with tiered seating, tablet arm chairs, modern demonstration desk and appliances, complete projection equipment, including microprojector, and full sets of charts and lantern slides.

FOUR ART STUDIOS. Four art studios are available for work in drawing and painting, modelling and sculpture, and all phases of fine and applied art.

CLASSROOMS. The 32 rooms of the College are in constant use day and evening. They are well lighted, and are equipped with mechanical ventilation. Three of these rooms bear names in honor of the late D. A. Budge, Esq., the late Abner Kingman and the late C. T. Williams, Esq. The Accountancy room will seat 40 students at special commercial desks.

VISUAL INSTRUCTIONAL EQUIPMENT. In keeping with modern developments in instructional methods, the College has recently greatly increased its equipment for visual instruction. This now includes not only a wide range of charts, models, maps, and pictures for basic instruction in the sciences and fine arts, but also extensive projection equipment. This includes two sound motion picture projectors, five projection lanterns (two of which are equipped for opaque projection), and two sets of microprojection apparatus. Appropriate sets of many hundreds of slides accompany this equipment. While

especially useful in such fields as the fine arts, biology, and natural science, this equipment is often used in other courses. The college also owns a tachistoscope for use in effective reading courses.

LIBRARY AND READING ROOM. In charge of trained librarians, the open-stack library is increasing its holdings rapidly to keep pace with growing demands of the curriculum and the student body. Reading rooms have accommodation for one hundred and fifty students at one time.

CHAPEL. The Captain's Chapel provides, with its modern-romanesque architecture, stained glass and organ, an atmosphere conducive to quiet meditation and spiritual inspiration.

GYMNASIUM AND SWIMMING POOL. The College has the use of two gymnasia, swimming pool, handball courts, and other equipment for use by the students in their health and recreation programme.

RESIDENCE. Men students may reside in the Y.M.C.A. dormitory which occupies the same building as does the College.

The residences of the Montreal Y.W.C.A., both within walking distance of the College, are recommended for women students. Particulars may be obtained from the Residence Secretary, Y.W.C.A., 1124 Dorchester Street, West.

CLASSIFICATION OF STUDENTS

(1) **UNDERGRADUATES:** Students who, at the time of registration, meet full admission requirements and enroll with the intention of completing the work required for a degree or diploma are classified as Undergraduates whether they be taking several subjects or only one in any given year.

(2) **PARTIAL COURSE STUDENTS:** Students who, at the time of registration, do not expect to proceed to a degree or diploma are classified as Partial Course Students irrespective of the number of subjects of study they may be following in any given year.

REQUIREMENTS FOR ADMISSION TO THE COLLEGE (FACULTIES OF ARTS, SCIENCE, AND COMMERCE)

The college reserves the right to refuse admission even when the stated requirements for entrance have been satisfied.

(1) **UNDERGRADUATES:** (a) Admission to the College may be secured by the presentation of satisfactory proof of graduation from high school with an average of at least 60% in not fewer than ten papers. A student who has the Quebec High School Leaving Certificate, or its equivalent, with fewer than ten papers may be admitted to the College provided the Committee on Admissions considers that his general average, his high school principal's report, and the results of other tests he may be required to take give satisfactory evidence of his ability to do college work. The College does not require any special selection of subjects in high school,

but rather seeks evidence of consistent good scholarship in the subjects chosen as an indication of ability to do college work. It is expected, however, that English will have been taken by all students in their final year at High School, and Algebra, Geometry, and at least one science by students planning to enter the Science Course. Students planning to enter the Day Division must also present a satisfactory High School Principal's Report (see College application form). The College may at its discretion require certain students to take other tests. Students whose mother tongue is other than English must show, on certain tests administered by the College, that they have sufficient knowledge of the English language to be able to follow a College programme conducted in that language.

(b) Admission to the College may be secured by fulfilling the special entrance requirements for persons over 21 years of age. Persons over 21 years of age who have not satisfied the technical requirements for high school graduation but who have the capacity to do college work are admitted as conditioned undergraduates in the College by fulfilling the *Special Entrance Requirements for Persons over Twenty-one Years of Age*. Details regarding these requirements may be obtained from the Registrar.

(2) **PARTIAL COURSE STUDENTS:** In the case of students wishing to enroll for partial courses or unit subjects in the Evening Division, high school graduation is not required, except in the case of those subjects in which successful college work is absolutely dependent upon preliminary work in the same subject taken at the high school level. Certain unit courses in the College, however, are not dependent upon work completed in high school. Students wishing to register for such unit courses, as Partial Course Students, are required, therefore, only to be sufficiently mature to do the work of the course. Although the College will follow this policy of admission of Partial Students, it reserves the right, however, to ask for proof of High School Graduation in certain cases.

While partial course students and students following single courses of interest are expected and encouraged in the Evening Division of the College, only in special circumstances will the registration of partial students be accepted in the Day Division. Where necessary and desirable, however, and upon approval of the application by the Registrar, such registration may be made.

Sir George Williams High School

Applicants for admission to the Faculties of Arts, Science, and Commerce, whose entrance certificates do not quite meet the requirements, may make up the deficiency in the Evening High School.

LIST OF EQUIVALENT CERTIFICATES

The following certificates are accepted as fulfilling the requirements for entrance to the first year of the College provided that a standing equivalent to 60% average on the Quebec High School Leaving Certificate is indicated.

Province of Quebec

- a. The High School Leaving Certificate (Protestant or Catholic).
- b. The Graduation diploma of Sir George Williams High School.
- c. The Junior School (or Matriculation) Certificate of the several Universities.
- d. The Graduation diplomas of certain secondary schools.

Other Provinces of Canada

- a. NOVA SCOTIA: The Grade XI Certificate.
- b. PRINCE EDWARD ISLAND: The Second Year Certificate, Prince of Wales College.
- c. NEW BRUNSWICK: Junior Matriculation or High School Leaving.
- d. ONTARIO: The Middle School Certificate, or Grade XII.
- e. MANITOBA: The Grade XI Certificate.
- f. SASKATCHEWAN: The Grade XI Certificate.
- g. ALBERTA: The Grade XI Certificate.
- h. BRITISH COLUMBIA: Junior Matriculation Certificate.

United States

- a. The College Entrance Board Certificate.
- b. The Board of Regents Certificates, State of New York.
- c. The graduation diploma of accredited High Schools.

Other Certificates

Certificates other than those mentioned above may be submitted to the Registrar for examination and evaluation.

APPLICATION FOR ADVANCED STANDING

Students who wish to apply for advanced standing upon the basis of work already completed in other colleges or universities should understand the following conditions:

1. Each application for advanced standing is considered individually, on its merits.
2. A student, who presents evidence of having completed one full year of study in a four-year college, will be admitted, as a rule, to the second year of the College. It is provided, however, that if such student's first-year selection of subjects has not coincided with the curricular requirements of the College, the deficiency must be made up in the second year.

3. Students presenting senior matriculation, senior high school leaving, or upper school certificates will, in general, be given credit in the first year, course for course, for subjects completed. Owing to the special requirements of the curricula of the College, which are listed below, it is not possible for a student to obtain complete first year standing through presentation of one of the above certificates. Deficiencies may be made up, however, during the remainder of the course provided they are not too great and, further, that the student does the extra work necessary.

4. In order to obtain a degree or diploma in the College, a candidate must do the equivalent of at least one full academic year's work (including the final year) in the College irrespective of the amount of *pro tanto* credit allowed. (In the Evening Division this is interpreted to mean that a student must complete at least five full courses over a period of at least three four-month terms.) This regulation applies to students presenting certification of more than one year's work in another college or university, and also to graduates of Sir George Williams College who may wish to qualify for a second bachelor's degree in a field (Arts, Science, or Commerce) other than that in which they were graduated. The College does not encourage the practice of students qualifying for several degrees at the bachelor level. In no case will the college grant all three bachelor's degrees to one student without special review of the circumstances by Faculty Council.

5. Except by special permission of the Dean no course or courses will be accepted *pro tanto* for the pandemic courses.

6. Any undergraduate of the College presenting a qualifying certificate for a commission in any branch of Her Majesty's Forces will be granted one full course credit in any division (Natural Science, Social Science, or Humanities.) Such credit will apply only to the unspecified elective courses under category "e" in the degree requirements in Arts, under category "f" in Science, and under category "g" in Commerce. Such credit will not apply towards the five courses needed to meet the residence requirements.

7. A Student will not be given credit for courses taken at another university during the same academic term in which he has been registered for courses at Sir George Williams College, unless special permission has been obtained in advance from BOTH the Dean AND Registrar.

ACADEMIC YEAR AND CLASS HOURS

The winter session of the college is divided into two terms. In the day division each term is three and one-half months in length. In the evening division each term is four months in length. Exact dates marking the opening and closing of the various terms are to be found in the calendar on page four of this announcement.

In most cases three hours of lectures are held in each course each week in the day division. In the evening division the same courses involve only two hours of lectures per week. Fewer lecture hours per week are required in the evening division than in the day division in view of the fact that the academic year is longer in the evening division and that evening students as a rule are older and more mature than day students, and the extra work, if necessary, is made up in assignments completed outside of class. Additional class hours are scheduled for laboratory work where this is included in a course.

The class hours of each course are given in the Day Division and Evening Division timetables which should be consulted before registering.

Summer Session

The summer session of the college, which is operated in the evening division only, is four months in length. The session is held for the convenience of evening students and it is recommended that evening students who take advantage of this session do so primarily to lighten the course load in the winter session. Evening students are not advised to carry a program through both winter and summer sessions, unless at a reduced course load, for two consecutive summers. Students regularly enrolled in the Day Division of the College may not take courses for credit in the summer session unless it is to make up a credit deficiency. In all cases, students in the summer session are limited to eight class hours weekly.

EXAMINATIONS AND ADVANCEMENT

All students registered in the College are required to write the regular progress examinations held in January and the final examinations held at the close of the session.

The grades awarded as the final standing in each subject for the academic year are given on the basis of:

- (1) The year's work of the student, week by week;
- (2) The progress examinations;
- (3) The final examinations.

The matter of satisfactory attendance will be given consideration in assessing the final grade for each subject.

Since June 30, 1943, course grades are awarded according to the following system:

A (90-100%), *B* (80-89%), *C* (70-79%), *D* (60-69%, the lowest clear passing grade), *E* (50-59%, a conditional pass, explained below), *F* (Below 50%, failure), *Abs.* (Absent from final examination), *Inc.* (A provisional category, indicating that a passing grade may be assigned when the student has completed additional required course work. Incomplete courses are finally graded not more than twelve months after the close of the session in which they were taken.)

Until June 30, 1943, course grades were awarded according to the following system:

A + (95-100%), *A* (90-95%), *A* - (80-89%), *B* + (70-79%), *B* (60-69%, the lowest clear passing grade), *C* (50-59%, conditional pass), *F* (Below 50%, failure), *Abs.* (Absent from final examination), *Inc.* (Course work incomplete).

A student who has obtained satisfactory grades in all but one of his subjects, and has a "conditional pass" (*E* in the new grading system, *C* in the old) in that subject may proceed to the next year of his course without the necessity of writing a supplemental examination. However, if that subject is pre-requisite to advanced work which he expects to take the following year, he is advised to make an effort to improve his standing during the vacation and to pay special attention to that subject during the ensuing year.

A student may receive credit for one "conditional pass" (*E*) in any given academic year (in the evening this is interpreted as within each group of five consecutive courses) provided that all the other courses in that academic year are passed with a grade of "*D*" or better. A student receiving two "*E*'s" or an "*E*" and an "*F*" in one academic year will be given no credit for these "*E*" grades, and all such "*E*" grades will be considered as failures and necessitate the writing of supplemental examinations under the usual conditions.

Absences from examinations and incompletes are considered as failures.

In order to secure credit for failed courses, supplemental examinations in those courses must be written. A student may progress to the following year carrying one such "condition" provided it is not pre-requisite to advanced work to be taken in the higher year. This "condition" must be removed, however, within twelve months of the time of the final examination failed, or the course repeated if credit for it is to be secured.

Students securing "*F*" grades (or the equivalent) in three or more subjects in any given year are required to repeat those subjects, if credit for them is to be secured, and may not write supplemental examinations in those courses. They may register for further courses only with the special approval of the Dean or Registrar.

Students are reminded that all grades of conditional pass, failure, absence, and incomplete remain permanently on their records, and are reported in all transcripts of record, although credit may be obtained at a later date by the passing of supplemental examinations, etc.

Supplemental Examinations and Late Completions

Supplemental examinations are held during the regular examination sessions in April-May and September only.

Application to write the Supplemental examinations must be submitted to the Registrar on the form provided for this purpose at least one month before the examination to be written, by March 1st or July 31st. A fee of \$5.00 per paper is charged for these supplemental examinations, payable at the time of application.

Without special permission of the Faculty Council, supplemental examinations may not be written later than thirteen months after end of the term in which the course was taken.

Without the special permission of the Faculty Council credit may not be secured for courses by passing examinations unless the course has been followed in the regular way during the academic year. When such permission is given a fee of \$5.00 is charged for each paper, payable at the time of application.

When a student has obtained the grade of "incomplete" in any subject, this grade may be changed when the student has completed the required additional course work within a period of twelve months from the end of the course and has paid a fee of \$5.00.

Except in the cases of veteran students, absent for a certified illness, all supplemental examinations and late completions of assignments will be graded only as "credit", "E", or "F".

REGISTRATION AND FEES

Enrollment must be made personally at the College offices, during the month preceding the opening of the Session (see calendar on page 4).

All students registering in the College for the first time must present a record of previous school and college work with their application for admission. Following this application, the student's proposed course of study must be approved before the application can be accepted and registration permitted. Students will be assigned to classes in order of registration, irrespective of the date of application, or acceptance. In accepting applications, the College makes no guarantee to reserve a place in its classes.

After the opening of the term, students may change their programme of studies only upon the approval of an administrative officer.

Course Load

Students in the Day Division will carry five courses in the first year (five and one-half courses for Science students); the remainder of the twenty-one courses will be taken over the three following years, with not more than six courses in any one year. A six course program will normally be sanctioned in only one of these three years, although the Faculty Council approves the principle of superior students taking one extra subject for credit in any year. Such students must make a request in writing to the Registrar for

permission to carry this extra course. Students in the Evening Division will normally carry a maximum of three courses.

A student with a deficiency should remove it by a supplemental examination or by a summer evening course. Under *exceptional* circumstances a student may be permitted to make up a deficiency by taking an extra course during the regular session on written application to the Registrar for permission to do so.

The College Office

The College Office is on the third floor of the main building. The office hours are 9:00 a.m. to 9:00 p.m. (Saturday, 12:00 p.m.).

College Bookstore

All books and supplies required may be purchased at the College Bookstore. Students should secure a book-list from the College Office and be sure of the edition required before buying books elsewhere.

FEES

Any student registered for more than four courses will be considered a full time student of the college and will be charged fees as scheduled below for the Day Division.

FEES—DAY DIVISION

Tuition, per year (exclusive of other fees below).....	\$225.00
Tuition, extra subjects (in addition to regular programme) each full course*.....	45.00
Tuition, partial course students, or individual course fee....	50.00
Laboratory fee, payable in addition to tuition, for each subject involving laboratory or practice periods in addition to lectures.....	15.00
Caution Money Deposit (made by each student and re- funded, less breakages and shortages, at close of year)	5.00
Deferred Payment fee (charged when tuition is paid in two or more installments).....	2.50 to 5.00
Course Change fee (for changes 10 days after opening of term—payable at time of change).....	5.00
Late Registration fee.....	5.00
Supplemental examinations, per paper (not transferable or refundable).....	5.00
Students' Undergraduate Society, annual fee.....	15.00
Associate Diploma fee (payable on April 1st of award year)	5.00
Graduation fee (payable on April 1st of graduating year)...	10.00
Removal of Incompletes.....	2.00
Transcript fee (for each issuance of Transcript of Record)	1.00
Studio Fee (Fine Arts 108).....per month	8.00

*A full course represents a subject studied for one full academic year of two terms. A course which continues for one term only, half the academic year, is therefore a half-course.

FEES—EVENING DIVISION

Tuition (exclusive of other fees below):	
Each half-course*.....	\$ 20.00
Each full course*.....	40.00
Laboratory fee, payable in addition to tuition for each subject involving laboratory or practice periods in addition to lectures.....	10.00
Caution Money Deposit (made by each student taking laboratory work, and refunded, less breakages and shortages, at close of year).....	3.00
Deferred Payment fee (charged when tuition is paid in two or more installments).....	1.00 to 5.00
Course Change fee (for changes 10 days after opening of term—payable at time of change).....	5.00
Late Registration fee.....	5.00
Supplemental examinations, per paper (not transferable or refundable).....	5.00
Evening Undergraduate Society, annual fee (payable by all Undergraduates; optional for Partial Students).....	5.00
Associate Diploma fee (payable on April 1st of award year)	5.00
Graduation fee (payable on April 1st of graduating year)	10.00
Removal of Incompletes.....	2.00
Transcript fee (for each issuance of Transcript of Record)	1.00
Studio Fee (Fine Arts 108).....	per month 8.00

Registration Deposit

A registration deposit of \$5.00 must be paid by all students in the College. This deposit will be credited to their tuition contract, but is not refundable in the event of non-attendance. Registration is not considered complete in any case until the student concerned has complied with all requirements of the Registrar's Office and has paid the prescribed deposit, or has made an arrangement for the payment thereof which has been approved by the Bursar.

Deferred Payment Plans

All tuition accounts not paid in full on or before Oct. 15th are subject to a charge of a deferred payment fee as indicated below.

\$1.00 on tuition and lab fees totalling	\$15.00-\$25.00.
1.50 " " " " " "	26.00-50.00 (2 or 4 payments within the first 4 months of the term.)

*A full course represents a subject studied for one full academic year of two terms. A course which continues for one term only, half the academic year, is therefore a half-course.

3.00 on tuition and lab fees totalling	26.00-50.00 (6 payments within the first 6 months of the term.)
2.50 " " " " " "	51.00 and over (2 or 4 payments within the first 4 months of the term.)
5.00 " " " " " "	51.00 and over (6 payments within the first 6 months of the term.)

In all cases initial payments of the above deferred payment plans must be paid on registration.

The College reserves the right to withhold the award of a degree, diploma or transcript of credit to any student whose fees are not paid in full.

Withdrawal and Refund

Students who are forced to withdraw from a course, or from the College are required to notify the Registrar's Office in writing and to give their reason for withdrawal.

- (1) Application for withdrawal must be presented within *ten* days after discontinuing attendance.
- (2) Credits or refunds will be granted when students are compelled to withdraw on account of illness (the application must be accompanied by a certificate from a physician) or when a student who is regularly employed is compelled to change his working hours or is sent out of the city on business (the application must be accompanied by a statement from the employer.)
- (3) The following fees are not refundable, viz: fees for course changes; late registration; removal of incompletes; supplemental examinations, and student societies.

Full second term fees will be refunded to students withdrawing from classes during the first term plus:—

- (a) 80% of the first term's tuition for withdrawal on or before Oct. 20th.
- (b) 40% of the first term's tuition for withdrawal on or before Nov. 15th.
- (c) 20% of the first term's tuition for withdrawal on or before Dec. 1st.
- (d) After Dec. 1st no tuition refunds or withdrawal adjustments will be granted for the first term.

Students withdrawing from classes during the second term will be granted a refund on the following basis:—

- (a) 80% of the second term's tuition on or before Feb. 10th.
- (b) 40% of the second term's tuition on or before Mar. 1st.
- (c) 20% of the second term's tuition on or before Mar. 20th.
- (d) After Mar. 20th no tuition refunds or withdrawal adjustments will be allowed.

SCHOLARSHIPS

Abner Kingman Scholarships: In the evening division only, five scholarships of \$50.00 each, endowed by personal gift of the late Abner Kingman in 1928, awarded annually to students who have attended the College for at least one academic year and who show great promise.

D. A. Budge Memorial Scholarships: In the evening division, a series of scholarships in memory of the late D. A. Budge from the bequest of the late W. G. Cheney, tenable in Sir George Williams High School. One of these scholarships is tenable in the first year of the College in the evening division, on the basis of work done in the final year of the High School.

Max E. Binz Scholarships: In the day division, three scholarships of \$50.00 each donated by Max E. Binz, one in Arts, one in Science, and one in Commerce, open to all students who have attended this College for at least one academic year.

John W. Ross Memorial Scholarship: In the day division, this scholarship is established by the family of the late John W. Ross, President of the Young Men's Christian Association of Montreal from 1905 to 1915. \$150.00 is awarded annually to a Y.M.C.A. Fellowship student on the basis of academic standing after having completed at least one year at Sir George Williams College.

Nathan Berkow Scholarship: A Scholarship of \$50.00 awarded to an outstanding student in the third or fourth year in the Day Division, in memory of the late Nathan Berkow, a third year student in the College at the time of his death in October 1950.

L. B. Holliday Scholarship: Awarded by L. B. Holliday and Company (England) through the Education Committee of the Canadian Association of Textile Colourists and Chemists (Quebec Section) annually, to the student with the highest grade in the second year courses of the three-year programme of textile studies, and tenable in the third year of the programme.

Sir George Williams College Memorial Scholarship: In the day division, this Scholarship was established by the Veterans' Society and other students of Sir George Williams College in 1949, and maintained by them in subsequent years. A four year scholarship, covering tuition fees, for courses at Sir George Williams College in the Faculties of Arts, Science, or Commerce, for a son or daughter of a serviceman or servicewoman of the Canadian Armed Forces who died during or due to World War II (1939-1945). A student receiving this scholarship in his first year will receive it in subsequent years provided he maintains the required standards. Further particulars may be obtained from the Registrar.

National Council of Jewish Women of Canada Scholarships: In the day and evening divisions, a fund of \$200.00 annually has been provided by the National Council of Jewish Women of Canada, for distribution according to financial need. The awards will be made on the basis of need, but adequate scholarship is required.

Foremen's Club of Montreal Scholarships: In the day and evening divisions, a fund of \$200.00 will be distributed as scholarships for students showing distinction in courses in administration and related subjects.

Continuation Scholarships: In the day and evening divisions, ten scholarships of \$100.00 each will be awarded in the academic year of 1952-53 by the college to students who, having completed one academic year at the College, have need of financial assistance. The award will be made on the basis of need and academic standing.

Entrance Scholarships: In the day division, twenty scholarships of \$85.00 to \$105.00 each have been offered, by the Board of Governors of Sir George Williams College, each year for several years, to promising first year students entering the College. These scholarships are awarded on the basis of:

- (a) standing in the High School Leaving examinations;
- (b) scholastic ability;
- (c) economic need.

The Sir George Williams College Memorial Scholarship, the National Council of Jewish Women of Canada Scholarship, the Continuation Scholarships, and the Entrance Scholarships are awarded upon application. Application should be made to the Dean or Registrar.

The other scholarships listed above are awarded upon the basis of work done in the College or Schools and *not* upon application.

PRIZES

Governor-General's Medal. A medal, presented by His Excellency the Governor-General of Canada, will be awarded annually to the graduating student showing the highest achievement in the field of English language and literature.

Le Prix Villard founded by the students in the French Classes of the College in 1942-43 "pour récompenser, chaque année l'étudiant qui s'est le plus intéressé et distingué dans l'étude de la langue et de la littérature françaises," and continued since his death, as a memorial to the late Dr. Paul Villard, by one of his former students, Mr. Yves Gallet.

The Board of Governors Medal for Creative Expression awarded annually, when merited, by the Board of Governors of the College to the student or students giving evidence of outstanding ability in creative expression in the fine arts,—creative writing, oratory, drawing, painting, drama, or music.

First Graduating Class Award. The first graduating class of the Faculty of Arts, Science and Commerce, known as the Guinea Pig Club, a name symbolic of their pioneering experience, makes a presentation, when merited, to the student who is adjudged to have made the most outstanding new contribution, either academic or extra-curricular, to the student life of the College.

Association of Alumni Award awarded annually, when merited, to the graduating student, who, in the opinion of the Faculty Council of the College, has by his activities, achievements, and interest, during his term at the College, won the outstanding commendation and respect of his fellows and of the faculty.

The Mappin Medal awarded annually, when merited, by Mappin's Ltd. of Montreal to the highest ranking graduating student in Science.

The Frosst Medal awarded annually, when merited, by Charles E. Frosst & Co., to the highest ranking graduating student in Commerce.

The Birks Medal awarded annually, when merited, by Henry Birks & Sons (Montreal) Ltd., to the highest ranking graduating student in Arts.

The Lieutenant-Governor's Silver Medal for History: Awarded annually, when merited, to the student with the highest standing in the History Major.

Psychological Association of the Province of Quebec: Awarded annually, when merited, to a student who has done outstanding work in Psychology.

The Chemical Institute of Canada Prize awarded annually to the best third year student entering fourth year and majoring in Chemistry.

The C.I.L. Prize in Chemistry, a cash prize of \$50.00 to be awarded to the graduating student with highest standing in Chemistry courses.

The Sun Life Prize in Economics awarded annually, when merited, by the Sun Life Assurance Company of Canada, to the graduating student with the highest standing in the Economics Major.

The Whattam Award in Textiles. This is a prize established and awarded by the Canadian Association of Textile Colourists and Chemists (Quebec Section) in memory of the late T. W. Whattam, formerly instructor of Textile courses in the College, and a prominent member of the Association. Approximately \$25.00 in value, the award is granted by the Association to the student with the highest standing in the third year of the Textiles courses, after having completed Textiles 101, Textiles 102, Textiles 103, and any other related courses which the Association may prescribe for the certificate which it awards jointly with the College.

THE ACADEMIC DIVISIONS

The various courses of study offered in the combined Faculties of Arts, Science, and Commerce are grouped in four Divisions: The Natural Sciences Division, the Humanities Division, the Social Sciences Division, the Commerce Division.

The subjects of study included in each of these Divisions of the College are as follows:

THE NATURAL SCIENCES DIVISION (Pages 56 to 69):

- Biology
- Chemistry
- Draughting
- Mathematics
- Physics
- Textiles

THE HUMANITIES DIVISION (Pages 69 to 82)

- English Language and Literature
- Fine Arts
- French Language and Literature
- German
- Greek
- Hebrew
- Latin
- Philosophy
- Spanish

THE SOCIAL SCIENCES DIVISION (Pages 82 to 94):

- Economics
- Education
- Geography
- History
- Mathematics
- Political Science
- Psychology
- Sociology

THE COMMERCE DIVISION (Pages 95 to 103):

- Accountancy
- Commerce
- Executive Training
- Mathematics

While all students will follow some courses in each of the first three Divisions, students who pursue the curriculum in Arts will find that a majority of their courses are in the Humanities Division or the Social Sciences Division, Science students will elect most of their courses from the Natural Sciences Division, and Commerce students from the Commerce Division.

CURRICULA

Each year's work of a student must be approved before it is considered valid for academic credit.

CURRICULUM FOR THE DEGREE OF BACHELOR OF ARTS

Candidates for the degree of Bachelor of Arts are required to complete twenty-one full courses* in accordance with the following plan:

- a. Four full courses in English. Of these English 101 and 116 must be taken during the first year. (French 104, French-Canadian Literature, may be substituted for a half course in English by those qualified to take it.)
- b. Three pandemic courses: Natural Science 101 and Social Science 101 in the first two years, and Humanities 101.
- c. In the Natural Sciences Division, at least two additional full courses but not more than five.
- d. In the Social Sciences Division, at least three additional full courses.
- e. In the Humanities, Social Sciences, and Commerce Divisions the remainder of the twenty-one courses. However, not more than three full Commerce courses may be taken for this degree. One course in Mathematics may be counted as a credit in the Humanities Division.
- f. Students will attend seminars as arranged in the guidance programme of the College.

CURRICULUM FOR THE DEGREE OF BACHELOR OF SCIENCE

Candidates for the degree of Bachelor of Science are required to complete twenty-one full courses* in accordance with the following plan:

- a. At least three full courses in English. English 101 in the first year, and two other approved courses, including one full course in literature.

* A full course represents three hours of class work per week for a full academic year, with the required additional laboratory or studio work. A three-hour course followed for one term only is therefore a half-course.

- b. Three pandemic courses: Natural Science 101 and Social Science 101 in the first two years, and Humanities 101.
- c. At least Chemistry 101 or 102, but not both; Physics 101; Biology 101 and two other laboratory courses in one of the following fields—Chemistry, Physics, or Biology.
- d. At least Mathematics 101, 101B and 103A, or the equivalent.
- e. At least two but not more than five additional full courses in the Humanities, Social Sciences, and Commerce Divisions.
- f. The remainder of the twenty-one courses from the Natural Sciences division.
- g. Students will attend seminars as arranged in the guidance programme of the College.

CURRICULUM FOR THE DEGREE OF BACHELOR OF COMMERCE

Candidates for the degree of Bachelor of Commerce are required to complete twenty-one full courses* according to the following plan:

- a. At least three full courses in English. English 101 in the first year, and English 120, one full course in literature, and a selected half-course.
- b. In Mathematics, at least Mathematics 102 and 103.
- c. In Accountancy, at least Accountancy 101 and 102.
- d. Economics 101 and at least two other full courses in Economics.
- e. Three pandemic courses: Natural Science 101 and Social Science 101 in the first two years, and Humanities 101.
- f. Commerce 105 and at least two additional full courses in the Commerce Division.
- g. The remainder of twenty-one courses to be selected.
- h. Students will attend seminars as arranged in the guidance programme of the College.

* A full course represents three hours of class work per week for a full academic year, with the required additional laboratory or studio work. A three-hour course followed for one term only is therefore a half-course.

CURRICULA FOR THE DIPLOMA OF ASSOCIATE

At the conclusion of two years' work in the Day Division, or the equivalent in the Evening Division, a student may be awarded the diploma of Associate in Arts, Associate in Science, or Associate in Commerce. In order to be awarded this diploma the completion of eleven full courses* is required, the selection to be made not only in compliance with the curricula below but with a view to realizing the maximum values in the two years of college work. Work done in fulfillment of the requirements for the Associate diploma is, of course, applicable toward a degree.

Curriculum for the Diploma of Associate in Arts

- Two full courses in English. (English 101 and 116, to be taken during the first year.)
- Two pandemic courses: Natural Science 101, and Social Science 101 or Humanities 101.
- In the Natural Sciences Division, at least one additional course but not more than two.
- In the Social Sciences Division, at least one additional course.
- In the Humanities, Social Sciences, and Commerce Divisions the remainder of the eleven courses, not more than two of which may be in Commerce.
- Students will attend seminars as arranged in the guidance programme of the College.

Curriculum for the Diploma of Associate in Science

- At least one and one-half courses in English (English 101 in the first year, and a half-course in literature).
- Two pandemic courses: Natural Science 101, and Social Science 101 or Humanities 101.
- Biology 101, Physics 101, and Chemistry 101 or 102 (but not both) and at least one other laboratory course in one of these fields.
- At least Mathematics 101 or the equivalent.
- The remainder of the eleven courses to be selected from any of the Divisions.
- Students will attend seminars as arranged in the guidance programme of the College.
- Students preparing for the medical secretaryship may substitute Accountancy 101 for Mathematics, and omit Physics.

* A full course represents three hours of class work per week for a full academic year, with the required additional laboratory or studio work. A three-hour course followed for one term only is therefore a half-course.

Curriculum for the Diploma of Associate in Commerce

- At least one and one-half courses in English (English 101 in the first year, and a half-course in literature).
- Two pandemic courses: Natural Science 101, and Social Science 101, or Humanities 101.
- At least one full course in Mathematics, exclusive of Mathematics 100. (Mathematics 102 and 103 are recommended for Commerce students.)
- In Accountancy, at least Accountancy 101.
- In Economics, at least Economics 101.
- Commerce 105.
- The remainder of the eleven courses to be selected from any of the Divisions.
- Students will attend seminars as arranged in the guidance programme of the College.

Suggested Selection of Courses in the First Year

The suggestions listed below are arranged to suit the schedules of day division students. Evening division students may follow the same outlines by selecting some of the "first year" courses in their first year, and the balance of these in their second year.

ARTS		SCIENCE		COMMERCE	
Course	Credit	Course	Credit	Course	Credit
English 101	1	English 101	1	English 101	1
English 116	1	Natural Science 101	1	Natural Science 101	1
Natural Science 101	1	Mathematics 101 or 101A	1	Accountancy 101	1
Two selected courses	2	Mathematics 101B	½	Social Science 101	1
(Social Science 101 is recommended as one of these)		Two of: Biology 101 Chemistry 101 or 102 Physics 101	2	And one course to be selected	1
	5		5½		

NOTES:

- Students preparing for entrance to the Faculty of Engineering at McGill University will take first year Science, choosing Chemistry and Physics but not Biology, and adding English 116.
- Students preparing for an Associate Diploma (Day Division two years, Evening Division longer) should consult page 40 of the Announcement.
- While it is expected that most first year students will follow the programmes listed above, alternative programmes are possible. See page 42 for other courses permitted as first year selections.
- Potential Commerce majors are advised to make a careful study of their first year pattern.

Courses Permitted as First Year Selections

NATURAL SCIENCES		HUMANITIES		SOCIAL SCIENCES	
Course	Credit	Course	Credit	Course	Credit
Natural Science 101	1	English 100	1	Social Science 101	1
Biology 101	1	English 101	1	Political Science 101	1
Chemistry 101	1	English 116	1	History 101	1
Chemistry 102	1	Fine Arts 101	½	History 103	1
Draughting 101	1	Fine Arts 102	½	History 109	1
Mathematics 100	1	Fine Arts 103	½ or 1	History 110	1
Mathematics 101	1	Fine Arts 106	½		
Mathematics 101A	1	Fine Arts 107	½		
Mathematics 101B	½	Fine Arts 108	½ or 1		
Mathematics 103A	½	Fine Arts 109	½		
Physics 101	1	French 101	1		
Textiles 101	1	German 101	1		
		Greek 101	1		
		Latin 100	1		
		Latin 101	1		
		Philosophy 101	1		
		Philosophy 102	1		
		Spanish 101	1		

COMMERCE

Course	Credit	Course	Credit
Accountancy 101	1	Mathematics 101C	½
Commerce 106	1	Mathematics 102	½
Commerce 107	½	Mathematics 103	½
Commerce 111	½		

MAJORS IN THE CURRICULA FOR DEGREES

Majoring has been approved in the following subjects: Accountancy; Administration, Business; Administration, General; Biology; Chemistry; Economics; English; Fine Arts; History; Mathematics; Political Science; Philosophy; Physics and Mathematics; Psychology; and Sociology.

A "major" is an approved *sequence* of at least six full courses in one of the above subject matter fields, which may include certain approved courses in other closely related fields. In English ten courses (six courses beyond the four required for all Arts students) constitute a major.

Further information regarding majors may be found under the outlines of the specific subject matter fields listed in the following pages of the announcement.

Any student wishing to major must consult the Dean or the senior instructor of the subject matter field involved for approval before planning his course sequence, and present to the Registrar a statement signed by the appropriate instructor, authorizing him to register for studies in the field of major. It is recommended that such consultation take place during a student's second year, or before commencing the third year.

REQUIREMENTS FOR MAJORS

Major in Accountancy*

The following courses, in an approved sequence, constitute a major in Accountancy.:

Accountancy 101, 102, 103, 104, and 105.
Commerce 105, 106,† 113, 116, 119, 123, 124, and 125;
English 119.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in Commerce.

Major in Business Administration*

The following courses, in an approved sequence, constitute a major in Business Administration.:

Commerce 106†, 116, 123, 124, 125, 126, 128, 129;
Executive Training 102, 103, 104;
English 119;
Economics 102 and 108;
Psychology 101.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in Commerce

* The majors in Accountancy and Business Administration may be taken only in conjunction with the degree in Commerce.

† A full course in Commerce 106, or the combined half-courses Commerce 106-108, must be taken for this major.

Major in General Administration*

The following courses, in an approved sequence, constitute a major in General Administration:

Commerce 124, 125, 126, 128;
Executive Training 102, 103, 104;
English 119;
Psychology 101.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in Commerce.

Major in Biology

The following courses, in an approved sequence, constitute a major in Biology:

Biology 101, and five additional full courses in Biology; Chemistry 105; Mathematics 103A, and Mathematics 105 or 111.

Depending on the ultimate aims of the student certain other courses may be desirable. Under certain conditions Chemistry 112 may be counted as one of the necessary courses in Biology. No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in Biology.

Major in Chemistry

The following courses in an approved sequence, after completion of Chemistry 101 or 102 or the equivalent, constitute a major in Chemistry:—

Chemistry 103, 104, 105 and 108.
Any two of Chemistry 109, 106-115, 107-111, 112, 113.
Mathematics 103A, 105 or 111, Physics 102.

The following sequence is suggested:

Second year—Chemistry 103, 105, Mathematics 105 or 111, Physics 102.

Third year—Chemistry 104, 106, 108, 115, Physics 102, if not previously taken.

Fourth year—Any additional required courses in Chemistry not already taken.

Note: Because of the alternation of Chemistry 106, 112, 113 and 115, it may be necessary for the student to take one of these courses in his third year.

* The major in General Administration may be taken only in conjunction with the degree in Commerce.

Major in Biology and Chemistry

The following courses in an approved sequence constitute a major in Biology and Chemistry:

Biology 101, 105, 106, and one other optional course.
Chemistry 101 or 102, 105, 108, 112.
Mathematics 103A, 105 or 111.

Major in Economics

The following courses, in an approved sequence, constitute a major in Economics:

Economics 101, 102 or 110, 107 or 108, 109, 111, 114 and 106, or 112 and 116.
Mathematics 103.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in Economics.

Major in English

The following courses in an approved sequence constitute a major in English: English 101, 116 and 108, and five additional courses in English not including English 100, 112, 119, 123, 130, or 131. With the approval of the senior instructor in English a student may substitute Fine Arts 104 or French 104 or both for credit towards the remaining additional five courses.

A major in English will not be granted to any student who has failed to follow a *definite sequence* approved by the senior instructor in English; such approval to be obtained before he enters his third year.

Major in Fine Arts

The following courses in an approved sequence constitute a major in Fine Arts. (Note—three patterns are offered, one for students wishing to specialize in painting, one for students wishing to specialize in sculpture, and one for students seeking a general knowledge of aesthetics).

- 1—Fine Arts 103A, B, and C; Fine Arts 109A, B, and C; Fine Arts 110 and 102.
- 2—Fine Arts 108A, B, and C; Fine Arts 109A, B, and C; Fine Arts 110 and 107.
- 3—Fine Arts 109A, B, and C; Fine Arts 110, 104, 102, 107, 106, and Fine Arts 101B or 112, and Fine Arts 103 or 108.

While not required for the major, students majoring in Fine Arts are recommended to take the following subjects to supplement their major in Fine Arts:—English 126, History 101, History 103, Sociology 104, Sociology 109, and Psychology 101.

No student will be accepted for the major until a plan of studies over the several undergraduate years has been approved by the senior instructor in Fine Arts.

Major in French

The following courses in an approved sequence constitute a major in French: French 101, 102, 104, 112, 113, 114, 118, 119.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in French.

Major in History

The following courses in an approved sequence constitute a major in History:

History 101, 103 and 110; and three other full courses in History or approved related fields. One and a half credits from the following subjects may, with the approval of the senior instructor in History, be included in a History major:

Sociology 104, 109, Political Science 105, Economics 102, 109, 110.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in History.

Major in Mathematics

The following courses constitute a major in Mathematics:

In the first year—Mathematics 101 or 101A, and 101B.

In the second year—Mathematics 103A, 104, and 105.

In the third year—Mathematics 106, 107, 108.

In the fourth year—Mathematics 110, 114.

No student will be accepted for the major until he has been approved by the senior instructor in Mathematics.

Major in Mathematics and Physics

The following courses in an approved sequence constitute a Major in Mathematics and Physics:

Mathematics 101 or 101A, and Mathematics 101B, 103A, 104, 105, 107, 108; and Physics 101 and 102, 104, 105, 106, 107 and either Physics 109 or 110.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructors in Mathematics and Physics.

Major in Philosophy

The following courses in an approved sequence constitute a major in Philosophy:

Philosophy 101, 102 and four other full courses in philosophy. One of the following courses may, with the approval of the senior instructor in Philosophy, be included in a Philosophy major: Psychology 101 or 102, History 101, Sociology 102, Humanities 102, or Political Science 105.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in Philosophy.

Major in Political Science

The following courses in an approved sequence constitute a major in Political Science:

Political Science 101, 105, History 103; and three other full courses in Political Science. History 107 may be taken as a half credit towards a Political Science major.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in Political Science.

Major in Psychology

The following courses in an approved sequence constitute a major in Psychology: Psychology 101, 102 and four more full courses in Psychology. One of the following courses may, with the approval of the senior instructor in Psychology, be included in a Psychology major:

A course in Biology, a course in Sociology, Philosophy 101 or 102, Education 101, Mathematics 103, or Fine Arts 110.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in Psychology.

Major in Sociology

The following courses in an approved sequence constitute a major in Sociology: Sociology 102 and three other full courses in Sociology; and Psychology 106; and three of Psychology 108, 107, Economics 102, 107, Mathematics 103.

No student will be accepted for the major until a plan of study over the several undergraduate years has been approved by the senior instructor in Sociology.

Note: A full course in any field is to be considered as either a course carrying one full credit, or two courses carrying half credit.

SPECIAL PROGRAMMES OF STUDY

Engineering Matriculation

Arrangements have been made with McGill University whereby students preparing at Sir George Williams College for entrance to the Faculty of Engineering of the University may take English 101 and 116 (or English 100 if their mother tongue is other than English) in lieu of senior matriculation English, and Natural Science 101 in lieu of the optional subject required for engineering matriculation, and may write Sir George Williams examinations only in these three courses. They must continue, however, to write McGill senior matriculation examinations in the required courses in Chemistry, Physics, and Mathematics.

Preparation for Entrance to Graduate Faculties and University Professional Schools

Students intending to transfer after graduation from Sir George Williams College to a university graduate faculty or professional school should consult the Registrar upon entrance to the College in order that their programmes of study may be planned to satisfy the entrance requirements of the university they expect later to attend, as well as the requirements for the degree or diploma they seek in the College.

It is generally recognized that the obtaining of a bachelor's degree does not necessarily imply the ability to do graduate work or research. However, students who, in the opinion of the Faculty, have exhibited during the period of their course those special abilities which are required in order to do successful university professional school work or research may be given a *Certificate of Recommendation to Graduate Faculties and University Professional Schools* upon application to the Faculty Council. Students who do not merit this Certificate will not be supported by Sir George Williams College in applying for admission to such professional schools or universities.

It is standard practice for university graduate schools to require of applicants not only a high standard of previous academic performance but an extended amount of undergraduate specialization or "majoring" in the specific subject in which the advanced degree is sought, sufficient to enable the student to commence immediately upon the graduate courses. Graduates of high standing in a general college course are therefore usually required to take additional work in their subject, sometimes to the extent of a "qualifying year", before proceeding to the work for higher degrees.

Y.M.C.A. Secretaryship Training

Young men and women wishing to prepare themselves as secretaries in the Canadian Y.M.C.A. may do so in the College by choosing for the B.A. degree the maximum possible number of courses in the social sciences division, including the special courses leading to the Diploma in Association Science. A special announcement may be obtained from the Registrar.

Preparation for Entrance to the Study of Medicine

Students preparing at Sir George Williams College for admission to the Faculty of Medicine of McGill University may take the B.A. or B.Sc. course, at least three years of either being required for admission, although the complete degree course is preferable and usually is insisted upon by the medical school.

Such students must be sure to include among their courses these four: Inorganic Chemistry—Chemistry 101, or 102. Organic Chemistry—Chemistry 105. General Biology—Biology 101. General Physics—Physics 101. Since all applicants for admission to the study of medicine in Quebec must be approved by the

College of Physicians and Surgeons, their wishes should also be observed. It is imperative, therefore, for pre-medical students to include in their programmes such "classical" courses as Philosophy (at least two courses), World Literature, Humanities, Latin (high school Latin will satisfy). It should be noted also that they much prefer a pre-medical student to have a B.A. rather than a B.Sc. degree.

Students planning to study medicine at universities other than McGill should consult the Registrar of the College for information regarding required pre-medical courses.

Preparation for Entrance to the Study of Dentistry

Students preparing at Sir George Williams College for admission to the Faculty of Dentistry at McGill should take the B.Sc. Course, at least two years of which is required for admission.

Such students must be sure to include among their courses these: Chemistry 101, Physics 101, Biology 101, Chemistry 105, and Philosophy 106.

Preparation for the Study of Law

Students planning to enter the study of law should take the Arts degree and should note that Article 29, Section (i) of the Bylaws of the Bar of Quebec require proof that "a candidate has followed successfully a regular course in philosophy either before or after his admission to study law". Such students are advised, therefore, to include this subject among their course selections for one or more years.

It should also be noted that an ability to read French easily is required for admission to the Faculty of Law at McGill University.

The degree of the College is approved for admission to the study of law at Osgoode Hall.

Provincial High School Teacher's Diploma

Regulation 130f of the School Regulations of the Protestant Committee of the Council of Education of the Province of Quebec provides that "in order to be eligible for entrance to the course or courses in the theory and practice of Education leading to a high school certificate, a candidate must be a graduate of an approved University." The Central Board of Examiners has approved the Bachelors degrees in Arts and Science from Sir George Williams College for this purpose provided that the candidate has been admitted to the College on not less than ten papers in the Provincial High School Leaving Examinations, or holds an equivalent certificate. Students who may be admitted to the College with less than ten papers and who wish to become candidates for this diploma are advised to consult the Registrar with regard to taking extra courses in the College or Evening High School to make up this deficiency.

Regulation 130f also provides that candidates must pass certain subjects approved by the Central Board of Examiners in the first two years of their courses in Arts or Science, as follows:

Arts Division:

Courses of the First Year: English (obligatory) and any four of the following, French, Geography, History, Latin, Mathematics, or one Physical or Biological Science.

Courses of the Second Year: English and two courses continued from the first year.

Science Division:

Courses of the First Year: English (obligatory), Mathematics (obligatory), two Physical or Biological Sciences, and one elective chosen from History, and acceptable modern foreign language, a third Science subject.

Courses of the Second Year: English and two courses continued from the first year.

Candidates should consult the Dean or Registrar with regard to the selection of their courses in the final two years to be sure that they obtain satisfactory training in the courses they will later normally be called upon to teach. Candidates should note that Mathematics 100 and English 100 will not be accepted as undergraduate credits for purposes of this diploma.

Forms of application for admission to the course in Education should be forwarded by students to the Central Board of Examiners not later than the end of their second year, so far as this is possible, the purpose being to ensure that the courses followed will be of as great value to students wishing to enter the teaching profession as it is reasonable to expect.

For purposes of this diploma, Natural Science 101 may be treated as a first year course instead of Physics, Chemistry, or Biology; Natural Science 102A is accepted as a half-course in science; Natural Science 102A together with a half course in Geography is accepted as a full second year course; Social Science 101 is accepted in place of Geography or History; Humanities 101 is accepted as a first year course in History; English 101 and English 116 are both needed to satisfy the requirements as a first year course in English.

Entrance to Intermediate Class of the School for Teachers

Candidates for the Intermediate Teachers' Diploma of the Province of Quebec are required to pass ten papers in Grade XI and also to hold a Senior High School Leaving Certificate or its equivalent. Courses of Sir George Williams College are accepted so far as they are equivalent to Senior High School Leaving requirements.

Specialization in Textile Dyeing

In co-operation with the Canadian Association of Textile Colourists and Chemists, the College offers a group of courses for

those engaged in, or preparing for employment in the textile industry. Students who complete the required courses may, if they wish, write the external examinations of the City and Guilds of London Institute for which the College is an official examining centre. A detailed outline of this programme of studies may be obtained on request. These courses also may be included in curricula leading to the diploma of Associate in Science and the degree Bachelor of Science.

Courses for Practical Engineers

Among the scientific and technical courses offered by the College are many which may be helpful to non-graduate practical engineers. Such courses are valuable in advancing technical competence and providing a background of scientific knowledge for work done daily on the job. They may be credited toward the degree of Bachelor of Science in the College. They are of assistance in providing educational background at the pre-professional level to those who are preparing to write the qualifying examinations of the Corporation of Professional Engineers of the Province of Quebec (P.E.Q.) or other professional engineering bodies.

Membership in the Chemical Institute of Canada.

The degree of Bachelor of Science with the major in chemistry that is offered by Sir George Williams College is approved as satisfying the requirements for admission to membership in the Chemical Institute of Canada under bylaws 6 and 7 of the Institute. Undergraduates, who have reached the age of seventeen, are eligible for election as *Student Members* if they are following the program leading to the degree and major mentioned above. Graduates are eligible for election as *Junior Members* provided they are obtaining further training in approved graduate courses in Chemistry or Chemical Engineering or further professional experience approved by the Institute; upon completion of such training or experience, commencing not earlier than the first of January immediately following graduation, and provided that they have reached the age of twenty-one, they may be eligible for election as *Professional Members*. Further information may be obtained from the Registrar.

Specialization in Accountancy

Undergraduates in the Bachelor of Commerce course may specialize in Accountancy by following the Major pattern provided in this field. See page 43 of this announcement.

Specialization in Administration

Undergraduates in the Bachelor of Commerce course may specialize in Administration by following the Major pattern provided in either Business Administration (see page 43), or General Administration (see page 44).

Chartered Accountants

Students holding the Bachelor of Commerce degree with a Major in Accountancy from Sir George Williams College at the time of registering with the Institute are now exempt from the Intermediate examinations of the Institute of Chartered Accountants of Quebec, and from three of the five years of apprenticeship required for the C.A. degree. Further information may be obtained from the Registrar.

Certified General Accountants

It is possible, also, for students of the College to prepare for the examinations of the General Accountants Association which grants the title of C.G.A. (Certified General Accountant). This may be done by making an appropriate selection of unit courses, or by including the required courses in programmes leading to the diploma of Associate in Commerce or to the degree of Bachelor of Commerce. Students holding the Bachelor of Commerce degree from Sir George Williams College are now exempt from Intermediate Part I and II of the Association's examinations and from three of the five years of practical accounting experience required. Further information may be obtained from the Registrar.

The Chartered Institute of Secretaries.

Students holding the degree of Bachelor of Commerce from Sir George Williams College are now exempt from three of the intermediate examinations of the Chartered Institute of Secretaries excluding the Secretarial Practice examination itself. Application for these exemptions must be made to the Secretary of the Institute.

Specialization in Fine or Commercial Art

Those wishing to include specialization in fine or commercial art in a course leading to the diploma of Associate in Arts or the degree Bachelor of Arts, may arrange a suitable programme of studies.

Specialization in Advertising

A program of advertising and related subjects may be followed in either a one or two year course. Further particulars may be obtained from the Registrar.

Other Specially Planned Programmes

Students wishing a programme of study different from any of those suggested above or below are invited to discuss their plans with an officer of the College. Students whose mother tongue is other than English particularly are urged to take advantage of the special arrangements which can be made to suit their needs.

SUMMARY OF REGULATIONS

A brief summary of certain regulations is presented here for the guidance of students. A fuller statement of these regulations may be found elsewhere in the Announcement. Students should note that it is the policy of the College to consider individual circumstances in applying these regulations.

1. Residence Requirements

One full year at the College (including the final year) consisting of not less than five full courses. In the evening divisions these five courses must be taken over at least three four-month terms.

2. Attendance

Attendance requirements will vary from course to course, but attendance will be considered in assessing final grades. Students whose attendance is unsatisfactory may be refused credit for the course on the basis of examinations or assignments alone.

3. Examinations

All students are expected to write the regular mid-term and final examinations. Absence from examinations is considered as failure except in the cases of certifiable illness.

4. Completion of Class Assignments

Students who fail to complete class assignments on time will be marked "incomplete". Grades of "incomplete" are considered as failures, and may be removed only by completing the required work within thirteen months, and paying the "late completion" fee.

5. Special Examinations

Normally, students will not be permitted to write examinations for courses for which they are not registered at the College. Under special circumstances, in order to validate certain courses for which proper certificates are not available students may be permitted, by approval of Faculty Council, to obtain credit for such courses upon the writing of a special examination.

6. Conditional Passes

An "E" grade is considered a conditional pass and is credited only when all other courses in the academic year are passed with a grade of "D" or better. Additional "E" grades are counted as failures and are not credited to the student. Students may be advised not to proceed to advanced subjects for which courses conditionally passed are prerequisites.

7. Supplemental Examinations

a—Supplemental examinations are written during the regular examination sessions in April-May and September, only.

b—Applications for supplemental examinations must be submitted *not later* than March 1st for the May examinations, and July 31st for the September examinations.

c—Applications and fees may not be transferred to a later examination period.

d—Supplemental examinations must be written within thirteen months of the completion of the course.

e—Students may write only one supplemental examination in a subject without repeating the course.

f—Supplemental examinations will be graded as only "credit", "E" or "F".

8. Credits for Outside Courses (Advanced Standing)

a—In general, *pro tanto* credit will be given for courses of the Senior High School Leaving, or at other colleges and universities, on approval of the Registrar, provided they are equivalent to courses offered by the College.

b—Irrrespective of the amount of credit given, the specific requirements for the several degrees, and the residence requirements must be met.

c—Pro tanto credit will not usually be given for the pandemic courses.

d—Credit will not be given for courses taken outside the college during the period that a student is registered at the college, unless permission has been obtained in advance from the Dean *and* the Registrar.

9. Number of Courses permitted in Program

a—Day Division—five full courses in the first year, (five and one half in the Science Division). The remainder of the twenty-one courses will be taken over the three following years with not more than six courses in any one year.

b—Evening Division—a maximum of three full courses a year.

10. Extra Courses

a—Superior students in the Day Division may be given permission to carry an extra course for credit in any year on written application to the Registrar, as long as the total number of courses for the year does not exceed six full courses.

11. Deficiencies

A student with a deficiency may make it up

a—by writing a supplemental examination

b—by taking a summer course

c—under exceptional circumstances, by taking an extra course during the regular session, by special permission on written application to the Registrar.

12. Eligibility for Summer Courses

The Summer Session is intended primarily as an aid to the Evening students, who are limited to eight hours a week in this session.

Day Division students may not take summer courses unless it is to make up a credit deficiency.

13. Failures

Students securing "F" or equivalent grades in three or more full courses in any given year are required to repeat those subjects, if credit for them is to be secured, and may not write supplemental examinations in these courses. (Considered as failures are all "absences", "incompletes", and "E" grades beyond the one allowed as a conditional pass.) Such students may re-register for a subsequent session only with the special approval of the Dean or Registrar.

OUTLINES OF SUBJECTS

On the following pages are given brief outlines of the various courses of study offered in the College. These courses are offered in both Day and Evening Divisions. Students should consult the requirements of the Curricula (pages 38-41) before making their selections. *Each of these courses may be taken separately, as a unit course, by Partial Course Students in the Evening Division.*

The College reserves the right to alter without notice the content of any of the courses listed in the following pages, to change the schedule of courses offered, and to cancel any course for which there is insufficient registration.

THE NATURAL SCIENCES DIVISION

Note: Students requesting admission to advanced courses in Biology, Chemistry, Mathematics and Physics must have their courses approved by the professors concerned.

Natural Science 101. General Course in the Natural Sciences

A pandemic course providing an introduction to the basic sciences necessary for an intelligent appreciation of the world of our day. Science is presented as a unity. The aim is to help the individual to see himself in relation to the universe, to free himself from superstition and prejudice, to gain criteria for the estimation of truth and to rely upon established truth for the ordering of his own life, to appreciate the leadership of the specialist in particular and scientific method in general for solving individual and world problems;—in short to guide constructively the beliefs and attitudes of the student. Incidentally the student gains a view of the various branches of science which may help him to choose more effectively his further courses. The subject matter dealt with is as follows: (a) animals and plants, their functions and relations; heredity and environment; adaptive change; man's place in nature; health and disease; man's behaviour; prehistoric man; the development of civilization, culture, industry, etc. (b) the earth in space, the universe; the earth's crust, soil, minerals, rocks, strata, fossils; the nature of matter, energy, radiation, etc.; science applied through machines, etc.; scientific method; the great scientists and their contributions. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Natural Science 102. General Geology

The course deals with the earth as a body; its origin and structure; the changes that have taken place on its surface; the forces producing these changes; and the general development of life forms through its history. It carries on in greater detail the Geology section of Natural Science 101, providing an introduction to each of the half dozen recognized geological sciences. While not intended to equip those who may wish to undertake practical geological work, it offers a broad general basis for an intelligent interest in the planet on which we live. Lectures are illustrated with lantern slides and specimens. Prerequisite: Natural Science 101.

(The two sections constitute a full course, but either may be taken as a half course.)

Section A—PHYSICAL GEOLOGY.

Day Division: October to January, every year.

Evening Division: October to January, every year.

Section B—HISTORICAL GEOLOGY. Prerequisite: Natural Science 102-A.

Day Division: January to May, every year.

Evening Division: January to May, every year.

Natural Science 103. Descriptive Astronomy

The course deals in a descriptive way with the various celestial bodies and their relationships, avoiding mathematical treatment as much as possible, and expanding in greater detail the Astronomy section of Natural Science 101. Starting with the Solar System and continuing into Stellar and Galactic Astronomy, its aim is to offer the student the modern concept of the stellar universe as a whole. Lectures are copiously illustrated with lantern slides. Through the co-operation of the Royal Astronomical Society of Canada, Montreal Centre, students may make contact with the many activities of those who follow Astronomy as a hobby, particularly telescopic observation through the use of the Society's instruments. The course is intended as a preparation for an intelligent amateur interest in this rapidly developing science. Prerequisite: Natural Science 101. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Natural Science 104. History of Science

This course presents an outline of the development of scientific attitudes, and relates the story of the progressive achievements of science, from primitive times to the present. It emphasizes the close relationship of the various branches of science, thus providing a historical background for a better understanding of the significance of the particular sciences in which students are interested. (Half course).

Day Division: January to May, every year.

Evening Division: October to January, every year.

BIOLOGY

Biology 101. General Biology

The purpose of this course is to develop an interest in, and an understanding of living organisms. The student is introduced to the various fields of biological science and to the principles and concepts which have been developed. The contributions of Biology to human welfare, the understanding of the biological nature of man together with his relationship to his biological environment form the central theme of the course. The laboratory work will acquaint the student with the principal types of plant and animal organisms, illustrate certain biological concepts, and give him an introduction to the techniques and methods of the biological sciences. Natural Science 101, or the equivalent, should be taken previously or concurrently. Lectures and laboratory. (Full course).

Day Division: October to May, every year.

Evening Division: October to May, every year.

Biology 102. Genetics and Human Welfare

This course attempts to make the student thoroughly familiar with the principles of heredity as understood by modern biology. It also deals with the application of genetic principles to organisms including man. The biological basis of social problems and social evolution is dealt with at some length. The doctrine of organic evolution and its implications for human life and welfare are also considered. Natural Science 101, and, preferably, Biology 101 are prerequisite for this course. (This course may be taken for credit either as a Natural Science or as a Social Science.) (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Biology 103. Embryology and Histology

This course is concerned with the processes of growth and development of the vertebrate individual. The descriptive material in the first part of the course deals with the comparative development of lower vertebrates as a basis for study of the embryology of man and a discussion of experimental embryology. The histology of tissues and organs is studied as these are encountered. Prerequisite: Biology 101, and desirably Biology 105 or Biology 106. Lectures and laboratory. (Full course.)

Day Division: October to May, 1954-55, and alternate years.

Evening Division: October to May, 1953-54, and alternate years.

Biology 105. General Physiology

A course in functional biology. The principal physiological processes, nutrition, circulation, respiration, excretion, co-ordination and reproduction are dealt with in a comparative manner, but with considerable emphasis on human biology. The fundamental similarity of these processes in all animals is stressed. An introduction to the nature of protoplasm and the functioning of the cell is included. The practical study of some of the simpler physiological processes forms the basis of the laboratory work. Prerequisites: Biology 101, Chemistry 101 and Physics 101, or the equivalents. A knowledge of organic chemistry is also desirable. Lectures and laboratory. (Full course.)

Day Division: October to May, 1953-54, and alternate years.

Evening Division: October to May, 1953-54, and alternate years.

Biology 106. Vertebrate Zoology

The bulk of the course is concerned with the comparative anatomy, interrelationships and evolution of the chordate animals, although the problems of their development, physiology, ecology and distribution are not overlooked. The course provides a good background for the student proceeding to the study of human anatomy and physiology. In the laboratory, representatives of the principal vertebrate classes are dissected. Prerequisite: Biology 101 or its equivalent. Lectures, laboratory and field trips. (Full course.)

Day Division: October to May, 1953-54, and alternate years.
Evening Division: October to May, 1954-55, and alternate years.

Biology 107. Invertebrate Zoology

The invertebrate phyla are studied from the evolutionary point of view as the earliest forms of animal life on the earth and the precursors of the vertebrates. This involves a consideration of their comparative anatomy, taxonomy and development. Emphasis is placed on those species of economic importance; disease carrying and disease producing organisms, beneficial insects, and forms providing food for man and other animals. Biological principles, well illustrated by the invertebrates such as regeneration, development of multicellular organisms, and the parasitic mode of life, are examined. In the laboratory, representatives of the principal invertebrate phyla are dissected. Prerequisite—Biology 101. Lectures and Laboratory. (Full course.)

Day Division: Not given, 1953-54.
Evening Division: Not given, 1953-54.

Biology 108. Ecology

A study of the relations of plants and animals to their environment. The following topics are dealt with: types of environments and their physical conditions; biological formations, associations and communities; the community as a unit; dominance in the community; community successions, seasonal and ecological; food chains; animal numbers, cycles in numbers; the conservation problem; balance of nature, carnivore-herbivore interactions; biotic control of agricultural pests, etc., soil and water conservation. Prerequisites: Natural Science 101 and Biology 101 or their equivalents. Lectures and periodic field trips. (Half course.)

Day Division: October to January 1954-55, and alternate years.
Evening Division: October to January 1954-55, and alternate years.

Biology 109. Histological Technique

Primarily a laboratory course in methods of preparing plant and animal material for microscopical study, it involves practical experience in fixing, embedding, cutting, and staining. Open to students majoring in Biology and other qualified students with the permission of the professor. (Half course extending throughout the year).

Day Division: Not given, 1953-54.
Evening Division: Not given, 1953-54.

Biology 111. Biology of the Higher Plants

A general course on the higher plants. Their structure, taxonomy, physiology, distribution and economic values are considered. Prerequisite: Biology 101. Lectures and laboratory. (Half course.)

Day Division: October to January, 1953-54.
Evening Division: October to January, 1953-54.

Major in Biology

Attention is called to the statement on majors on page 44 and page 45.

CHEMISTRY**Chemistry 101. Introduction to General Inorganic Chemistry**

This course is intended as an introductory course for those students who have had little or no previous study of this subject. A comprehensive exposition of the fundamental principles and theories is given, as well as a general consideration of the properties of the most important elements and their compounds. Full course, including two hours of laboratory work per week.

Day Division: October to May, every year.
Evening Division: October to May, every year.

Chemistry 101T. Introduction to Chemistry for Textile Students

A course in the principles of Chemistry which are of interest to the textile student. Topics from inorganic, organic, physical and industrial chemistry are selected and edited so as to provide the student with a basis for understanding the chemistry of textile processes. Students may not obtain credit for both Chemistry 101T, and Chemistry 101 or 102. (Full course.)

Day Division: Not given, 1953-54.
Evening Division: October to May, every year.

Chemistry 102. General Inorganic Chemistry

Prerequisite: High School Leaving Chemistry. A fundamental and historical development of the theory of inorganic chemistry is made, with mathematical treatment of equivalent, molecular and atomic weights, the laws of gases and solutions, and the principle of chemical equilibrium. The electron structure of matter is employed as the unifying concept for valence, periodic table, chemical combination and reaction. A descriptive study of colloids, metals and non-metals is given. Full course, including two hours of laboratory work per week.

Day Division: October to May, every year.
Evening Division: October to May, every year.

Chemistry 103. Qualitative Analysis (Semi-micro)

Prerequisite: Chemistry 101 or 102, Mathematics 101. Subject matter includes discussion of valence, ionization, the Bronsted-Lowry theory of acids and bases, co-ordination theory, complex ions, and balancing of oxidation-reduction equations. A quantitative treatment of the Law of Chemical Equilibrium is applied to ionization, precipitation, hydrolysis, etc. The laboratory work, which is carried out on a semi-micro scale, consists of the systematic identification of the cations and anions in a series of unknown solutions, after a study of the chemical reactions upon which their separation and detection are based. Full course, including four hours of laboratory work per week.

Day Division: October to May, every year.
Evening Division: October to May, every year.

Chemistry 104. Inorganic Quantitative Analysis

Prerequisite: Chemistry 103, Mathematics 101, Physics 101. This course deals with the fundamental principles of quantitative analysis including gravimetric and volumetric methods, use of the balance, apparatus, errors, etc. The lectures involve the application of the Equilibrium Law to ionization, precipitation, pH, oxidation-reduction and electrolytic separations. Modern instrumental methods of analysis such as colorimetry, voltammetry, nephelometry, etc., are discussed insofar as time will permit. The scope of this course is similar to that covered in Kolthoff and Sandell "Textbook of Quantitative Inorganic Analysis". The laboratory work includes, in addition to the standard methods of estimation of single constituents, the systematic analysis of a brass and a limestone. Full course, including 6 to 8 hours of laboratory work per week.

Day Division: October to May, every year.
Evening Division: October to May, every year.

Chemistry 105. Organic Chemistry

Prerequisite: Chemistry 101 or 102. The scope of the course covers the common aliphatic and aromatic series, isomerism, determination of structure, and mechanism of reactions. Full course, including 4 hours of laboratory work per week.

Day Division: October to May, every year.

Evening Division: October to May, every year.

Chemistry 106. Carbohydrates, Proteins, Amino-acids and Lipids

Prerequisite: Chemistry 105. This course covers the classification and structure of carbohydrates, amino-acids and lipids. Methods of synthesis, proofs of structure and analytical methods are discussed. The preparation of tracer substances containing isotopes is included as well as their use in current biochemical problems. (Half course, lectures only.)

Day Division: October to January, 1954-55, and alternate years.

Evening Division: October to January, 1953-54, and alternate years.

Chemistry 107. Advanced Inorganic Chemistry

Prerequisite: Chemistry 101 or 102. Chemistry 108 is desirable but not required. A detailed discussion of the periodic table with special reference to the chemistry of the more important elements and their compounds not previously covered. A portion of the time will be devoted to the modern theories of inorganic chemistry. (Half course).

Day Division: October to January, 1954-55, and alternate years.

Evening Division: October to January, 1953-54, and alternate years.

Chemistry 108. Physical Chemistry

Prerequisite: Chemistry 101 or 102, Physics 101, Mathematics 101. Kinetic theory as applied to gases, critical phenomena, and solutions. A brief discussion of the liquid state and crystallography is included. Other topics discussed are: electrochemistry, atomic structure, and radioactivity. Full course, including a problem period each week.

Day Division: October to May, every year.

Evening Division: October to May, every year.

Chemistry 109. Chemical Thermodynamics

Prerequisite: Chemistry 108, Mathematics 105 or 111. Development of the first two laws of thermodynamics serves as a basis for a more advanced treatment of gases, liquids, thermochemistry, electrochemistry. A brief treatment of chemical kinetics, activation energy and photochemistry is given. (Full course, lectures only.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Chemistry 110. Industrial Inorganic Chemistry

Prerequisite: Chemistry 101 or 102. This course involves a study of industrial chemical processes and practices pertaining to inorganic chemicals and products. The industries covered include those concerned with mineral acids, alkalies, synthetic ammonia, fertilizers, cements, ceramics, glass, electrothermal products, electrolytic metallurgy, and water treatment. (Half course, lectures only.)

Day Division: Not given, 1953-54.

Evening Division: October to January, every year.

Chemistry 111. Advanced Organic Chemistry

Prerequisite: Chemistry 105. This course deals mainly with the electronic theories of organic chemistry. A discussion of bond polarity, resonance, acid-base theory and hydrogen bonding is given as background for study of reactions of organic compounds. (Half course, lectures only.)

Day Division: January to May, 1954-55, and alternate years.

Evening Division: January to May, 1953-54, and alternate years.

Chemistry 112. Biochemistry

Prerequisite: Chemistry 105. Chemistry 106 and Biology 106 are recommended as prerequisite or concurrent courses. A study is made of the endocrine glands, enzymes, absorption of foods and digestive processes, intermediary metabolism of fats, carbohydrates and amino-acids, use of tracer atoms in biological research, glycolysis cycle, acid-base balance, function of hemoglobin and detoxification mechanisms. (Full course, including 4 hours of laboratory work per week.)

Day Division: Not given, 1953-54.

Evening Division: October to May, 1954-55, and alternate years.

Chemistry 113. Qualitative Organic Analysis

Prerequisite: Chemistry 104, Chemistry 105. The student is provided with training in the identification of organic compounds, as outlined in the text on this subject by Shriner and Fuson. After a period of study of various identification reactions and the solution of numerous problems, the student is required to identify several unknown compounds. Full course, including 4 hours of laboratory work per week.

Day Division: Not given, 1953-54.

Evening Division: October to May, 1953-54, and alternate years.

Chemistry 114. Industrial Organic Chemistry

For best results this course should be preceded by Chemistry 110. Prerequisite: Chemistry 105. This course is similar in nature to Chemistry 110, but deals with the field of organic materials. Among the industries discussed are those concerned with organic syntheses, fermentation, coal and wood distillation, petroleum refining, oils and fats, pulp and paper, paints, resins and plastics, rubbers, asphalts, etc. (Half-course, lectures only.)

Day Division: Not given, 1953-54.

Evening Division: January to May, every year.

Chemistry 115. Chemistry of High Polymers

Prerequisite: Chemistry 105, Chemistry 108. This course is intended to outline the fundamental characteristics of macromolecular substances, both natural and synthetic. A survey is made of the more significant polymers in the fields of plastics, resins, rubbers, carbohydrates, proteins, etc., and an attempt is made to correlate available knowledge about chain structure with the physical properties of the substances concerned. The two main types of polymerization reactions, addition and condensation, are discussed from the viewpoint of methods of polymerization and reaction mechanism. (Half course, lectures only.)

Day Division: Not given, 1953-54.

Evening Division: January to May, 1953-54 and alternate years.

Chemistry 116. Pharmacology

A first course in pharmacology inter-relating the therapeutic and physiological effects of the more common drugs on the organism. Prerequisites are Biology 101, Chemistry 105 and preferably Biology 105. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, 1953-54.

Chemistry 117. Radio Chemistry

The chemical applications of radioactivity. A study of the methods and techniques of the use of radioactive isotopes for the solution of chemical and biological problems. The laboratory work is the same as that of Physics 109 and is taken jointly with that class. Lectures and laboratory. This course may not be taken for credit by any student who has already taken and passed Physics 109. (Full course.)

Day Division: October to May, 1955-56 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

Major in Chemistry

Attention is called to the statement in majors on page 44.

DRAUGHTING

Note: Only undergraduates may take these courses as Draughting 101, 102 and 103, and they may not apply more than two course credits in Draughting toward a degree or diploma. Partial course students who wish Draughting are referred to Draughting 1, 2 and 3 as listed in the announcement of the evening division of Sir George Williams Business School. There also will be found allied courses in Blueprint Reading, Estimating, Strength of Materials, and Practical Mathematics.

Draughting 101. Elements of Draughting

A course designed to give a thorough training in the elements of engineering drawing to those engaged or about to be engaged in machine, aviation, structural, architectural or electrical draughting, including the reading of blueprints, use of draughting instruments and the making of tracings and original drawings. The course includes: selection and use of drawing instruments and materials, lettering, orthographic projection drawings, order of pencilling, order of inking, curved work, applied geometry, tangency problems, dimensions and notes, scaled drawings, auxiliary projection, revolution, sectional views, conventional sections, conventional practices and symbols, working drawings, classes of working drawings, assembly drawings, detail drawings, plant layouts, tabular drawings, commercial practices, chemical and electrical engineering drawings, tracings, blueprinting and other duplication processes. Basic descriptive geometry is introduced during the course and forms the continuation of orthographic projection. Students who have not had three or four years of high school mathematics, and who intend to take Draughting until they complete Draughting 103, should also take the Business School Course in Practical Mathematics, or the equivalent. Lectures and practice. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Draughting 102. Advanced General Draughting

An advanced course arranged to suit students in every branch of engineering drawing, in conformity with the best current industrial practice. The course includes the application of the geometrical principles used in the various types of Engineering drawings, and covers the conic sections, cycloidal and involute curves, the spiral of Archimedes and the cylindrical and conical helices, the various methods of developing surfaces, intersections of various surfaces, determination of the locus of all the points common to two intersection surfaces, screw surfaces—types of screw threads, conventional thread representations, locking devices—different types of screws and special bolts, helical springs, riveted joints, keys and keyways, pipes and fittings, pipe threads, pipe connections and joints, isometric, dimetric and trimetric projections, oblique projections, theory and practices in perspective projections as used by Engineers and architects, different types of perspectives, technique and shortcuts in making perspective drawings, shades and shadows in orthographic and perspective projections, technical and pictorial sketching. A good working knowledge of descriptive Geometry is required for this course.

Students taking Draughting 102 should also take Strength of Materials concurrently as a prerequisite to Draughting 103. Lectures and practice. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Draughting 103. Machine Drawing and Design

This course is designed to consolidate the work previously covered in engineering drawing, introducing the practical elements of machine design. The course includes further practice in the making of more complicated working drawings of machines and their parts, general consideration and procedure affecting design, materials used in the design of machines, design of cams, motions and linkages, allowances, tolerances, and fits, shrink and force fits, strength of screwed fastenings, riveted joints, keys and cotters, pipes and thin walled cylinders, expansion joints, supports for pipe lines, shafts and axles, couplings and clutches, journals and bearings, belts and pulleys, friction wheels, toothed gears, design of various machine parts. Lectures and practices. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

MATHEMATICS

Mathematics 100. Elements of Mathematics

This course is offered for students who have not had the usual pre-college training in mathematics. Subject matter: Elementary algebra up to and including simultaneous quadratic equations, and indices; certain theorems and problems in plane geometry. Students who have received credit towards their admission for High School Mathematics will not receive credit for this course. Students may have the option of taking an extra tutorial period, and may be required to do so at the instructor's discretion. (This course, when taken, will not satisfy the requirements in Mathematics for the diploma of Associate in Science or Commerce, or the degree of Bachelor of Science, but may be credited as an option in the Natural Sciences Division.) (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Mathematics 101. Algebra and Trigonometry

This course is offered for students who have completed elementary algebra and geometry in high school. Subject matter: (a) Algebra, logarithms; ratio; proportion; variations; arithmetic, harmonic and geometric progressions; theory of quadratics; permutations and combinations; the binomial theorem; graphical algebra. (b) Plane trigonometry, definition of trigonometric functions; identities and trigonometric reduction; radian measure; functions of multiple angles; transformation of products and sums of functions; solution of triangles by logarithms; solution of trigonometric equations; inverse functions; and graphs. (c) Tutorial: Students may be required to take supervised practice in the solution of problems in algebra and trigonometry. (No student who has passed intermediate algebra and trigonometry with 60% or more may register for this course.) (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Mathematics 101A. Algebra and Trigonometry

This course is offered as a first year college course in mathematics for students who have a satisfactory knowledge of high school intermediate mathematics, and as a second course for students who have completed Mathematics 101 or its equivalent and need a second course before attempting Mathematics 105. Mathematics 101B should be taken previous or concurrently. (a) Algebra: Simultaneous quadratics including graphical solutions, miscellaneous series, permutations and combinations, binomial theorem, probability, mathematical induction, complex numbers, theory of equations, partial fractions. (b) Trigonometry: Sum and difference formulae. Solution of triangles with logarithms, heights and distances, inverse functions, general values, limits and approximations, De Moivre's theorem. (c) Elements of Calculus. (Full course—with Algebra in the first and Trigonometry and Calculus in the second term.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Mathematics 101B. Analytic Geometry

This course is compulsory for first year science students. Subject matter: Points, distances, areas of polygons, straight line equations. Circle equations, tangents to the circle, parabola equations. (Half course.) Two hours per week per term.

Day Division: October to May, every year.
Evening Division: October to May, every year.

Mathematics 101C

See the Commerce Division page 103. (This course may not be taken for credit as a Natural Science, nor to satisfy the requirements in Mathematics for the diploma of Associate in Science, or for the degree of Bachelor of Science.)

Mathematics 102. Mathematics of Finance

See the Commerce Division, page 103. (This course may not be taken for credit as a Natural Science, nor to satisfy the requirements in Mathematics for the diploma of Associate in Science or the degree of Bachelor of Science.)

Mathematics 103. Statistical and Graphical Methods

This course provides the elementary principles of statistical method as applied in the scientific study and interpretation of economic and social phenomena. The course includes the collection of statistical data; various methods of presentation including tables and graphs; the frequency distribution and its mathematical analysis including averages, measures of dispersion, measures of skewness; normal curve; and correlation. This course is suitable for students in Commerce, Psychology and Sociology and also for those who plan to enter the fields of Social Work or Education. Economics 114 is recommended as a sequel to this course. (Half course.)

Day Division: October to January, and January to May, every year.
Evening Division: October to January, and January to May, every year.

Mathematics 103A. Statistics

This course is for Science students. Subject matter: treatment of data, frequency distributions, measures of central tendency and variability, normal curve, sampling, curve fitting, correlation, statistical design in experimentation. Prerequisites: Mathematics 101 or 101A, and 101B. (Half course.)

Day Division: October to January, and January to May, every year.
Evening Division: October to January, and January to May, every year.

Mathematics 104. Analytic Geometry

Subject matter: parabola, ellipse, hyperbola, translation and rotation of axes, polar co-ordinates, curve-tracing, determinants. Solid analytic geometry; lines, planes, surfaces, spherical and cylindrical co-ordinates. Prerequisites: Mathematics 101 or 101A, and 101B. (Full course.)

Day Division: October to May, every year.
Evening Division: October to May, every year.

Mathematics 105. Calculus

Subject matter: Constants, variables, definition of a continuous function; limits; the derivation of algebraic functions; differentiation of exponential, logarithmic, and transcendental functions; inverse trigonometric and hyperbolic functions; application of derivatives to physical problems, partial differentiation, integration, application of integration to areas, volumes and lengths of plane curves; applications to problems of physics. Prerequisites: Mathematics 101 or 101A, and Mathematics 101B. (Full course.)

Day Division: October to May, every year.
Evening Division: October to May, every year.

Mathematics 106. Advanced Algebra and Real Variable Theory

Subject matter: complex numbers, determinants, rank of matrix, theory of equations, limits, continuity, Riemann integration improper integrals, mean value theorems, numerical methods, functions of several variables, sequences, series. Prerequisites: Mathematics 104 and 105. (Full course.)

Day Division: Not given, 1953-54.
Evening Division: October to May, 1953-54 and alternate years.

Mathematics 107. Differential Equations

For students who have completed Mathematics 105 or its equivalent. Subject matter: Differential equations of the first order, homogeneous equations, envelopes, singular solutions, the linear differential equation, complementary function, particular integrals, simultaneous differential equations, equations of the second order, Legendre's equation, Bessel's equation. Applications to problems of physical chemistry, dynamics and electricity. (Half course.)

Day Division: October to January, every year.
Evening Division: October to January, every year.

Mathematics 108. Advanced Calculus

For those who have completed Mathematics 107 or its equivalent. Subject matter: Infinite series, Fourier series, partial differentiation, multiple integrals, line and surface integrals, Green's theorem, Stoke's theorem, Dirichlet's integral, gamma and beta functions, Laplace transform. Applications to problems of physics. (Half course.)

Day Division: January to May, every year.
Evening Division: January to May, every year.

Mathematics 109. Solid Analytic Geometry

Subject matter: coordinates in three dimensions, spherical and cylindrical polar coordinates, the plane, surfaces of the second degree, conicoids, tangent plane, osculating plane, centre and radius of spherical curvature, curvature and torsion of a helix. (Half course.)

Day Division: Not given, 1953-54.
Evening Division: Not given, 1953-54.

Mathematics 110. Theory of Functions of a Complex Variable

Subject matter: elementary functions, Cauchy-Riemann equations, integration, Cauchy's integral theorem, Taylor's and Laurent's theorems, calculus of residues, analytic continuation, conformal mapping. Prerequisite: Mathematics 106. (Full course.)

Day Division: Not given, 1953-54.
Evening Division: October to May, 1954-55 and alternate years.

Mathematics 111. Applied Higher Mathematics

This course is intended chiefly for students majoring in chemistry. Subject matter: Analytic geometry with emphasis on graphical treatment of experimental data, differential and integral calculus and some simple differential equations with application to chemical kinetics, thermodynamics and other problems of physical chemistry. Prerequisite: Chemistry 101 or 102, Physics 101 or 102 and Mathematics 101 or 101A, and Mathematics 101B. (This course may not be taken to satisfy the requirements of a major in Mathematics.) (Full course.)

Day Division: October to May, 1953-54 and alternate years.
Evening Division: October to May, 1954-55 and alternate years.

Mathematics 112. Operational Calculus

Subject matter: the Laplace transform and its region of convergence; the principal theorems of operational calculus—the shift, addition, differentiation, integration, impulse, and convolution theorems; its applications to approximations and asymptotic expansions, solution of ordinary differential equations, transient phenomena in electricity and dynamics, boundary value problem in heat flow, propagation of sound, telegraphy, etc. The course is intended for graduate engineers and students interested in mathematics and physics. It is applicable to the solution of many problems which are otherwise more laborious or require much ingenuity. Prerequisite: Mathematics 105 and 107. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: Not given, 1953-54.

Mathematics 113. Calculus of Finite Differences

Subject matter: principal results and definitions in finite differences with application to the study of sequences and construction of tables. Interpolation with equal and unequal intervals—the MacLaurin, Simpson and Gauss formulae. Numerical integration; solution of difference equations with some applications to problems in electricity and dynamics. The relation between differential and difference equations. The course should prove useful to students interested in numerical analysis. Prerequisite: Mathematics 105. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: Not given, 1953-54.

Mathematics 114. Introduction to Modern Algebra

Subject matter: integral domains, rings, fields, groups, vector spaces, matrices. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, 1953-54.

Major in Mathematics

Attention is called to the statement on majors on page 46.

PHYSICS**Physics 101. General Physics (Introductory)**

Elements of mechanics, sound, heat, magnetism, electricity, and light. A descriptive approach using only elementary mathematical methods. This course may be taken by students having no previous knowledge of Physics. Mathematics 101 or 101A must be taken previously or concurrently. Lectures and Laboratory. (Full course.)

References: Mendenhall, Eve, Keys, and Sutton, College Physics (Heath & Co.); Kolin, Physics (McGraw Hill); Weber, White and Manning, College Physics (McGraw Hill).

Day Division: October to May, every year.

Evening Division: October to May, every year.

Physics 102. General Physics

A more mathematical and intensive study of general Physics with emphasis on heat, light, sound, and electricity. Prerequisite: Physics 101 or equivalent, Mathematics 105 or 111 previously or concurrently. Lectures and Laboratory. (Full course.)

References: Sears and Zemansky, University Physics (Addison Wesley); Shortley and Williams, Physics, Vol. 2. (Prentice Hall).

Day Division: October to May, every year.

Evening Division: October to May, every year.

Physics 103A. Elements of Radio and Sound Reproduction

A course covering the fundamentals of electrical communication and sound reproduction. The following subjects are treated: Magnetic circuits, A.C. and D.C. Circuits mainly as applied to Communications, Inductance, Capacity, Resonance, Elementary Vacuum Tube Theory, Microphones and Loudspeakers. Grade XI Mathematics or equivalent is prerequisite. Lectures and experimental work. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Physics 103B. Radio and Sound Reproduction

A practical course on the principles underlying electrical communications. The following subjects are treated without resort to involved mathematics: Alternating Current Theory, Vacuum Tubes, Amplifiers, Radio Receivers and Transmitters, Test Instruments, Radiating Systems, Modulation Systems, Acoustics. Physics 103A and Mathematics 101 or their equivalents are prerequisite. Lectures and experimental work. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Physics 103C. Elements of Television

A general course in video communication for students who have completed Physics 103B and Mathematics 101A or equivalent. The course includes a study of television fundamentals and principles, electron optics, wave shaping, very high and ultra high frequency techniques, antennae, frequency modulation and micro wave communication. Lectures and experimental work. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Physics 104. Statics and Dynamics

Analytical and vector mechanics of particles, rigid bodies, deformable bodies and ideal fluids. An introduction to Lagrange's equations and the theory of Relativity. Prerequisite: Physics 102. Mathematics 107 should be taken previously or concurrently. Lectures only. (Full course.)

References: Lamb, Statics (C.U.P.); Lamb; Dynamics (C.U.P.); Synge and Griffith, Principles of Mechanics (McGraw Hill); Slater and Frank, Mechanics (McGraw Hill).

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Physics 105. Electricity and Electromagnetism

Field theory—electrostatics, dielectrics, direct currents, magnetic fields, magnetic materials, electromagnetic induction, alternating currents, Maxwell's equation, Poynting's theorem, plane electromagnetic waves, guided waves. Prerequisite: Physics 102. Lectures and Laboratory. (Full course.)

References: Page and Adams, Electricity (Van Nostrand); Slater and Frank, Electromagnetism (McGraw Hill).

Day Division: October to May, 1953-54.

Evening Division: October to May, 1953-54.

Physics 106. Light

Physical and geometrical optics, interference, diffraction, polarization, simple spectrum analysis. Prerequisite: Physics 102. Lectures and Laboratory. (Half course extended through the year.)

References: Monk, Light, Principles and Experiments (McGraw Hill); Jenkins and White, Principles of Optics (McGraw Hill); Robertson, Introduction to Physical Optics (Van Nostrand).

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Physics 107. Heat and Thermodynamics

Thermometry, calorimetry, heat transfer, thermodynamic systems, the laws of thermodynamics, Carnot's Cycle, entropy, phase rule, elementary kinetic theory. Prerequisite: Physics 102. Lectures and Laboratory. (Half course extended through the year.)

References: Zemansky, Heat and Thermodynamics (McGraw Hill); Weber, Heat and Temperature Measurement (Prentice Hall).

Day Division: October to May, 1954-55, and alternate years.

Evening Division: October to May, 1953-54, and alternate years.

Physics 108. Radio and Sound Reproduction—Advanced

An advanced general radio and electronic course for students who have completed Physics 103B and Mathematics 101 or equivalent. If Mathematics 105 has not been taken, it is recommended as a concurrent course. This course includes a practical study of acoustics; audio systems; transmission networks; equalizers, filters; amplitude and frequency modulation methods and receivers; ultra high frequency communication and television. Lectures and experimental work. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: Not given, 1953-54.

Physics 109. Atomic Physics

Elementary particles, structure of the atom, X-rays, Compton effect, photoelectric effect, Bohr's theory of atomic spectra, De Broglie waves, Schrodinger's equation, radioactivity, nuclear physics, atomic energy, cosmic rays. Prerequisite: Physics 102. Lectures and Laboratory. This course may not be taken for credit by any student who has already taken and passed Chemistry 117. (Full course.)

References: Semat, Atomic Physics (Rinehart); Hoag and Korff, Electron and Nuclear Physics (Van Nostrand).

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

Physics 110. Electronics

A course in basic electronics for physicists. The lecture topics include: thermionic tube theory, circuit analysis, amplifier and oscillator design, pulse circuits, electronic instruments. The laboratory work gives training in construction and measurement techniques. Lectures and Laboratory. (Full course.) Prerequisite: Physics 105 or equivalent.

References: Millman and Seely, Electronics (McGraw Hill); Seely, Electron-tube Circuits (McGraw Hill); Terman, Radio Engineering (McGraw Hill).

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Major in Mathematics and Physics

Attention is called to the statement on majors on page 46.

TEXTILES

Note: Only undergraduates may take these courses as Textiles 101, 102, 103 and 104. Partial course students are referred to Textiles 1, 2, and 3, as listed in the announcement of the evening division of Sir George Williams Business School.

Textiles 101. Technology of Fibre

The course includes the following: requirements of textile fibres; classification of commercial fibres, cellulose, protein and miscellaneous; the study of important commercial fibres with reference to origin or manufacturing methods, general properties, uses in standard fabrics, precautions in wear and handling; spinning and weaving; the preparation of fabrics for dyeing and finishing. Lectures and laboratory. (Full course.)

Students taking this course are strongly urged to take Chemistry 101, Chemistry 101T or 102 previously or concurrently. The course is designed to be of direct help to people entering or already engaged in the textile industry.

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Textiles 102. General Dyeing

General dyeing is studied under the following headings: dyeing machinery, chemicals used in dyeing, dyestuffs considered from the point of view of their dyeing properties, laboratory methods of identification of dyestuffs, and laboratory methods of using dyestuffs. Prerequisite: Textiles 101 or the accredited equivalent. Lecture and laboratory. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, 1953-54, and alternate years.

Textiles 103. Printing and Finishing

Subject matter includes: water and its treatment; printing of textiles, machines and methods, including thickeners, dyestuffs and chemicals used in the printing trade; engraving; finishing of textiles including machinery, methods and chemicals used. Prerequisite: Textiles 101 or the accredited equivalent. Lectures and Laboratory. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, 1954-55 and alternate years.

For a course in Introduction to Chemistry of Textile Students, see Chemistry 101T on page 59.

PSYCHOLOGY**Psychology 101, 102, 103, 104, 105, 106, 107, 108, 109A, 109B, 110**

(See the Social Sciences Division. Not more than one course in Psychology may be taken for credit as a Natural Science.)

THE HUMANITIES DIVISION**Humanities 101. General Course in the Humanities**

This pandemic course brings the student into contact with as many as possible of the masterpieces of thought and art of our cultural ancestors. The humanities are concerned with man's attempts to understand and feel at home in the world through religion, philosophy, and the arts. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Humanities 102. Twentieth Century Humanism

Modern authors and philosophers are studied and discussed in an attempt to discover the trend of humanistic thinking in the present century. Particular emphasis is placed on global thinking, the effect of modern conditions on contemporary thought. (Full course.) Prerequisite: Philosophy 101 or 102, and other approved courses.

Day Division: October to May, 1953-54, and alternate years.

Evening Division: October to May, 1954-55, and alternate years.

Humanities 103. The Teachings of Jesus

This course is an attempt to present by means of lectures and discussions a clear cut and comprehensive picture of the Religion of Jesus as taught and lived by him, and to trace the influence of this religion on the growth of organized Christianity.

It will review the basic principles of Jesus' teachings and consider how far these have carried over into the religion that has developed about him. It will consider also how these have influenced the modern movements that are molding the Christianity of to-day.

The course is designed to answer questions arising out of present day thinking about religious values. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: Not given, 1953-54.

ENGLISH**English 100. English Language and Literature**

This course is designed for students who have completed secondary school or the equivalent in a language other than English and for whom, therefore, English is a secondary tongue. It attempts to provide sufficient facility in English to enable such students to study with profit in that language and to express themselves adequately. The course includes: (a) English grammar and idiom, (b) Composition and oral expression. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

English 101. Communication Through Language

This course is designed to create an awareness of the nature and power of language, and to guide the student in the effective use and interpretation of English. The live relationship between classroom study and the language that is heard, read, written and spoken daily is emphasized in the lectures. Fundamental principles and techniques of correct expression are examined, and a study is made of specific modes of communication. In addition to class work, periodic assignments and a Term Paper are required. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

English 102. 19th Century Studies in English Literature

A study of the works of major writers in England from Wordsworth to Yeats. As the title implies, the course is not intended to be a fully inclusive survey, but will concentrate, in as great detail as possible on the most important writers and movements. Prerequisite: English 116. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

English 103. American Literature

A study of American prose and poetry from colonial times to the twentieth century. The first half of the course traces the main lines of American thought, and considers the chief influences upon the shaping of American language and literature. The second half of the course gives detailed consideration to certain individual works: Thoreau's "Walden," Melville's "Moby-Dick," Twain's "Huckleberry Finn," Lewis's "Babbitt," and selected contemporary poets. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

English 105. Spenser and Elizabethan Writers

Though this course is primarily devoted to the work of Spenser, some time will be spent upon the non-dramatic poetry of Wyatt and Surrey, Sir Philip Sidney, Ben Jonson and other Elizabethan lyricists, and upon the prose of Nash, Hooker and Bacon, among others. Prerequisites: English 116 and (unless exemption is granted by the instructor) English 108. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, 1953-54.

English 106. Milton and Early 17th Century Writers

The works of Donne, Browne, Burton, Walton and the Carolinian poets will be studied during the first term. The second term will be devoted to the prose and poetry of Milton. Prerequisite: English 116. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

English 107. English Literature of the 18th Century

This course is primarily a study of the work of four great writers of the Augustan era—Dryden, Swift, Pope, and Johnson; but considerable time will be devoted to other figures of the period from 1660 to 1798. The relationship between the literature and the social history of the time will be particularly stressed, and there will be lectures on the art, architecture, and music of the period. Prerequisite: English 116. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

English 108. Shakespeare

A study of Shakespeare's achievement as dramatist and poet, and the relationship of his work to the social and literary traditions of his day. Shakespeare's work as a whole will be surveyed in some detail: close attention will be paid to some five or six plays and to the Sonnets. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

English 109. Canadian Literature

This course provides for the study of Canadian prose and poetry written in or translated into English. Particular emphasis is placed on those writers who have contributed literature about the Province of Quebec; and to those who have attained international notice and repute. (For a similar and supplementary course in French, see French 104.) (Full course.)

Day Division: October to May, 1954-55.

Evening Division: October to May, 1953-54.

English 110. World Literature—Classical

Through the medium of the best English translations, this course attempts to give the student a clear knowledge and appreciation of the great masterworks of thought and expression that are an important part of his cultural heritage from the Ancient World. (Half course.)

Day Division: October to January, 1954-55 and alternate years.

Evening Division: October to January, 1954-55 and alternate years.

English 111. Twentieth Century Fiction

A study of the types, techniques, and themes of modern prose fiction. (Half course.)

Day Division: October to January, 1953-54.

Evening Division: October to January, 1953-54.

English 112. Creative Writing

For advanced students with special interest and ability in written expression, instruction will be given in the various literary forms. The student will be given assignments to discover in which form of literary expression he shows most promise, after which he will be encouraged and assisted in developing his own special form and style. Students will be admitted to this course only with the approval of the instructor. (Half course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

English 113. Advanced Study of Selected Period or Author

Fourth year students who wish to make an advanced study of a selected period or author will be admitted to this course. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

English 114. World Literature—Medieval

A course complementary to English 110 which explores, through the reading of modern English versions, the literary heritage of the middle ages from Boethius to Dante; writings of the early Christian Church; Irish, Old English, Romanesque, Arthurian, Teutonic, Romance, and Late Latin Literature. (Half course.)

Day Division: January to May, 1953-54 and alternate years.

Evening Division: October to January, 1953-54 and alternate years.

English 115. World Literature—Modern

A course complementary to English 110, which attempts to extend the literary experience of the student beyond the confines of his mother tongue, and of those secondary languages which he is ordinarily able to learn. Through the medium of the best English translations, a study will be made of the outstanding literature of other modern languages, including the French, German, Russian, Italian, Spanish, and Scandinavian. (Half course.)

Day Division: January to May, 1954-55 and alternate years.

Evening Division: January to May, 1954-55 and alternate years.

English 116. Introduction to English Literature

This is a first year course which aims at the development of greater interest in English Literature by introducing the student to the outstanding writers, and pointing out the contribution of each to our cultural life, and its relevance to the interests of the mature individual in the twentieth century. In the early part of the course, special attention is paid to the critical reading of poetry to increase the response of the student to literary expression. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

English 117. The English Bible

A brief study of the origin of the various translations of the Bible is followed by a consideration of its importance in the cultural life of the English-speaking peoples. Particular attention is then given to certain parts of the text, particularly the prophets, the psalms and the synoptic gospels. (Half course.)

Day Division: October to January, 1953-54 and alternate years.

Evening Division: October to January, 1953-54 and alternate years.

English 119. Reports, and Précis Writing

Advanced instruction is given in report writing, précis writing and other similar forms of written expression. After a general introduction, accompanied by practice in the basic principles of writing reports, précis, minutes, news articles and other special forms, an effort is made to cater to the particular needs of each student. Class members are encouraged to co-ordinate their assignments with their other studies or their daily work. (Half course.)

Day Division: October to January, and January to May, every year.

Evening Division: October to January, and January to May, every year.

English 120. Public Speaking

The aim of this course is to develop in the student the ability to express himself more effectively in every day life, as well as to give practice in speaking before groups of people. Attention will be given to personal appearance, dress, gesture, personality and nervousness. Extensive drill is provided in outlining speech material for original and logical presentation and the mechanical aspects of speech delivery. Weekly practice in application of principles involved with criticism by instructor. Those taking this course should plan to supplement it with English 123. (Half course.)

Day Division: October to January, and January to May, every year.

Evening Division: October to January, and January to May, every year.

English 123. Public Speaking, Advanced

Some previous course in the subject is prerequisite to a useful pursuit of this course. It is intended to lead the student to a study of the principles with which he has come into contact in English 120 and to give further practice in speech situations of greater variety. In addition to the simpler forms of practice, the student will give major lectures on which he will be subject to audience questioning of the type to be expected in normal speaking engagements. Practice and coaching in the techniques of group discussions. Research based on texts available in the library. (Half course.)

Day Division: January to May, every year.

Evening Division: January to May, every year.

English 125. The Modern Novel

A study of the origin and development of the English Novel to the end of the Nineteenth Century with special emphasis on readings from Defoe to Henry James. Prerequisite: English 116. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

English 126. Appreciation of Poetry

A study of the principles of poetry and its forms with special emphasis on the reading and analysis of all types of poetry with a minimum of historical and biographical detail. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, 1953-54 and alternate years.

English 127. The Modern Drama

A study of the evolution of the modern drama. Emphasis will be placed upon the plays of Ibsen, Shaw, and subsequent dramatists. (Half course.)

Day Division: October to January, 1954-55 and alternate years.

Evening Division: October to January, 1953-54 and alternate years.

English 128. Chaucer

A preliminary study of Chaucer's life and time: a systematic reading of Chaucer's works and a study of the language. (Half course.)

Day Division: January to May, 1954-55.

Evening Division: October to January, 1953-54 and alternate years.

English 129. Twentieth Century Poetry

A study of the works of those authors representing the major trends in the poetry of the twentieth Century. Beginning with Hardy and Housman, Sandburg and Masters, etc., the development of modern attitudes and techniques will be traced up to 1940, with attention to the Imagists, the Georgians, the War Poets, Eliot and Yeats, the Poets of the 30's and some recent developments in American, British and Canadian poetry. English 126 should be taken previously. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: January to May, 1953-54 and alternate years.

English 130. General Semantics

A course in the use and structure of language, and other symbol systems, as they affect problems of every-day living. An attempt is made to show how the static meanings arising from many of our language habits work to prevent ready adjustment to the situations of a constantly changing world. Scientific orientation is considered with a view to its application in the broader field of human affairs, with special emphasis on communication.

Day Division: Not given, 1953-54.

Evening Division: October to January, and January to May, 1953-54.

English 131. News Writing and Reporting

Prerequisite: English 101 or equivalent. An introduction to the technique of newspaper writing and reporting, concentrating mainly on the writing of news articles but touching such related topics as the following: the identification and obtaining of news, its preparation and distribution, the structure of the modern newspaper, the role of the newspaper in a democratic society, the ethics of journalism, various types of newspaper writing. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, 1953-54.

Major in English

Attention is drawn to the statement on majors on page 45.

THE FINE ARTS**Fine Arts 101A. The Understanding and Appreciation of Music**

To enable the student to understand and appreciate the great music of the world, and to develop taste and discrimination in music without the necessity of learning to play an instrument. The work of the course consists to a great extent in the actual hearing and analysis of the various types of music and composers, and in musically illustrated lectures and discussion. (Half course.)

Day Division: January to May, 1954-55 and alternate years.

Evening Division: January to May, 1953-54 and alternate years.

Fine Arts 101B. Musical Theory and Form

A more advanced course for the non-performer, affording a more detailed study of musical form, harmony and rhythm, melody, with some consideration of the elementary aesthetics of music. Students with little or no listening experience should take Fine Arts 101A previously. (Half course.)

Day Division: January to May, 1954-55, and alternate years.

Evening Division: January to May, 1953-54, and alternate years.

Fine Arts 102. The Understanding and Appreciation of Painting

A course in the understanding and appreciation of painting as a visual language. Lectures and discussion are combined with elementary studio work planned to illustrate art principles and procedure as applied to painting. Emphasis is placed upon the recurring problems of the painter, and an analysis is made of the various means by which the artist has interpreted these problems. No special background or training in art is required, and the exercises are designed to develop the understanding of non-artists. Lectures and Studio period. (Half course.)

Day Division: January to May, 1954-55 and alternate years.

Evening Division: October to January, 1953-54 and alternate years.

Fine Arts 103A. Studio Course in Drawing and Painting. (Introductory)

An introductory course in drawing and painting. The student is given basic training in drawing, with special attention being paid to artistic anatomy and perspective. During this course he also obtains an introduction to the various media used. Special periods are devoted to a problem-solving approach to basic design involving line, pattern, texture, shape, form, space, colour, movement, and colour theory and function. The student is encouraged to develop inventiveness, originality, and independence in the solution of these art problems and is encouraged to relate his visual experiences in everyday life to his solution. (Partial or unit course students wishing to study Art will register in the Sir George Williams School of Art.) (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Fine Arts 103B. Studio Course in Drawing and Painting. (Intermediate)

A more advanced treatment of the various media and pictorial composition, with drawing and painting from life and further study of colour theory. Special classes in design are continued, and three-dimensional problems are introduced, while two-dimensional problems now include the interpretation of subject matter in terms of design. An inventive and personal use of subject matter is again emphasized and the student is led to realize the possible variety of expression of his visual and emotional world. The study and interpretation of all schools of art, including naturalism and abstract art, helps the student through exploration to discover his own means of expression and development. (Open to undergraduates only.) (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Fine Arts 103C. Studio Course in Drawing and Painting. (Advanced)

An advanced course in which the student is encouraged to make his own projects, and is given the opportunity to do creative work under guidance and criticism. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Fine Arts 104. The History of the Theatre

Study of the development of theatrical production and the drama brings before the student the whole shifting scene of manners and customs, ideals and moral standards of the ages. This course traces the development of the theatre from the time of the Greek choric dance to the modern talking picture and legitimate stage, showing at each step how the culture of that age has been condensed and reflected in the vital and permanent art form of the theatre. (Half course.)

Day Division: October to January, 1953-54 and alternate years.

Evening Division: January to May, 1953-54 and alternate years.

Fine Arts 106. Art in Daily Living

A course in the application of basic design principles to the problems of everyday living. Lectures, discussion, and studio work will deal with pattern, texture line and colour, as they relate to home furnishings and arrangements, personal costume and accessories, advertising design, industrial design, community planning and community life. Pre-requisite: Fine Arts 102 or Fine Arts 110—Lectures and Studio period (Half course.)

Day Division: January to May, 1953-54 and alternate years.

Evening Division: October to January, 1954-55 and alternate years.

Fine Arts 107. Understanding and Appreciation of Architecture and Sculpture

To enable the student to understand and appreciate great works in architecture and sculpture, and to develop a discriminative understanding of three-dimensional form in design and in his architectural environment, the main types, styles, and techniques of these arts are explained and illustrated. To understand their significance, the student is encouraged to become familiar with great examples of these arts through pictorial reproductions, slides, models, museum visits, and field trips. (Half course.)

Day Division: October to January, 1954-55 and alternate years.
Evening Division: January to May, 1953-54 and alternate years.

Fine Arts 108. Studio Course in Modelling and Sculpture

For undergraduate students who wish to acquire skills in modelling and sculpture, as part of their college programme, studio work is provided. As instruction is individual, this course may be taken by advanced students as well as by those who have had no previous instruction. As Fine Arts 108a, 108b, and 108c, this course may be taken for credit each year for as many as three years. An additional tuition fee is charged undergraduates taking this course, details of which may be obtained from the Bursar. (Partial or unit course students wishing to study modelling and sculpture will register in Sir George Williams School of Art. See separate announcement.) (Half course or full course.)

Day Division: October to May, every year.
Evening Division: October to May, every year.

Fine Arts 109A. The History of Ancient and Medieval Art

A survey of the development of architecture, sculpture, and painting in ancient Egypt, Greece, and Rome, and in Early Christian and Medieval Europe, illustrated by an extensive collection of coloured and black-and-white slides, models, and other illustrative material. (Half course.)

Day Division: October to January, 1953-54 and alternate years.
Evening Division: January to May, 1954-55 and alternate years.

Fine Arts 109B. The History of Renaissance Art

A survey of the history of the development of Western Art from the fifteenth to the nineteenth centuries, illustrated by an extensive collection of coloured and black-and-white slides. (Half course.)

Day Division: January to May, 1953-54.
Evening Division: October to January, 1953-54.

Fine Arts 109C. The History of Modern Art

A survey of the history of Western Art during the latter part of the nineteenth, and the earlier part of the twentieth centuries. This course aims at an understanding and an evaluation of the various movements in modern art and of their relations to modern life. Illustrated. (Half course.)

Day Division: October to January, 1953-54 and alternate years.
Evening Division: January to May, 1953-54 and alternate years.

Fine Arts 110. An Introduction to Aesthetics

This course provides an introduction to the philosophy and psychology of aesthetics. Topics will include the nature of beauty and art, aesthetic experience, symbolic thinking and expression, art as symbolic activity, art as communication, and the principles of formal organization underlying all the arts: music, poetry, drama, sculpture, and painting. Lectures and illustrative problem periods. (Full course.)

Day Division: October to May, 1954-55 and alternate years.
Evening Division: October to May, 1954-55 and alternate years.

Fine Arts 111. Art Techniques for Classroom Use

Techniques and materials of art for use in average classroom situations. A combination studio and lecture course of particular interest to teachers. Students are introduced to various creative art media including painting, collage, construction, modelling, and are encouraged to see their possibilities in relation to children's art at different levels. Methods of display and exhibitions of children's art work are dealt with, and means of correlating art with other subjects on the curriculum are considered. The importance and nature of art in child development is stressed with aid of films, slides, and selected readings. (Full course.)

Day Division: Not given, 1953-54.
Evening Division: October to May, 1953-54.

Fine Arts 112. The History of Music

A study of the development of music in relation to cultural history from antiquity to the present day, stressing the early formative period up to the peak of polyphonic writing. Topics for discussion will include: early Greek, Chinese, and Hebrew music; sacred and secular monody; polyphony; Ars Antiqua; Ars Nova; Netherlands Schools; motet and madrigal; the "classical" outlook; the "romantic" outlook; impressionism; neoclassicism; atonalism; jazz and its influence. The course will be illustrated by recordings. No special background of musical training is required. (Half course.)

Day Division: October to January, 1954-55 and alternate years.
Evening Division: October to January, 1953-54 and alternate years.

Fine Arts 113. Canadian Art

A survey of Canadian art beginning with native Indian objects and concluding with a study of styles and influences in modern Canadian painting, sculpture, and architecture. Illustrated. (Half course.)

Day Division: Not given, 1953-54.
Evening Division: Not given, 1953-54.

Fine Arts 114. The History of Interior Design

A survey of domestic interiors and furnishings from Egyptian to modern times. Special emphasis is placed on the development of the various styles in furniture in Italy, France and England. Illustrated. (Half course.)

Day Division: Not given, 1953-54.
Evening Division: Not given, 1953-54.

Major in Fine Arts

Attention is called to the statement on majors on page 45.

FRENCH

Note: For regularly enrolled undergraduates, French 101, or the equivalent, is a prerequisite for all other courses in French.

French 101. French Language

This course includes exercises to help the student to increase his basic vocabulary and to improve his capacity for speaking, reading, and writing the French language. Classes are conducted in French. No student will be admitted to this course unless he has completed satisfactorily four years of high school French or the equivalent. (Full course.)

Day Division: October to May, every year.
Evening Division: October to May, every year.

French 102. French Phonetics and Idiomatic Expressions

This course provides for a thorough study of French phonetics, as well as French idioms, technical and commercial expressions. It aims at giving a greater ability in speaking the language. (Full course.)

Day Division: October to May, 1953-54 and alternate years.
Evening Division: October to May, 1954-55 and alternate years.

French 104. French-Canadian Literature

A study of selected readings from Canadian literature written in French, from the beginning of the French regime to the present day. This course may be substituted for a half course in English in satisfying the requirements for the Bachelor of Arts degree. (Half course.)

Day Division: October to January, 1954-55 and alternate years.
Evening Division: October to January, 1953-54 and alternate years.

French 112. French Literature in the 17th Century

A study of the literary thought of France in the 17th century. Advance instruction in composition and extensive drill in using the French language orally. Pre-requisite: French 114. (Full course.)

Day Division: October to May, 1953-54 and alternate years.
Evening Division: October to May, 1953-54 and alternate years.

French 113. French Literature in the 18th Century

A study of the social philosophy which has distinguished the French writer of the 18th century. Advanced instruction in composition and extensive drill in using the French language orally. (Half course.)

Day Division: January to May every year.
Evening Division: January to May, 1954-55 and alternate years.

French 114. French Culture in Medieval and 16th Century France

A study of the development of the language and literature of France from the fall of the Roman Empire to the beginning of the 17th century. (Half course.)

Day Division: October to January, every year.
Evening Division: October to January, 1954-55 and alternate years.

French 115. French Culture in Modern France

A study of French modern culture and its influence on the trend of French social, political and economic life. Short story writing and platform speaking. (Half course.)

Day Division: January to May, 1954-55, and alternate years.
Evening Division: January to May, 1953-54, and alternate years.

French 116. The Modern Drama

A study of the evolution of the modern French drama. Short story and news-paper, reports, and precis writing. Advanced public speaking in French. Pre-requisite: French 112 and 113. (Half course.) This course is no longer offered. See French 118.

French 117. The Modern Novel

A study of the French Novel in the 19th and 20th centuries with analysis and discussion. Short story writing, essays, newspaper editorials. Advanced public speaking in French. Pre-requisite: French 116. (Half course.) This course is no longer offered. See French 118.

French 118. French Literature in the 19th Century

A study of the evolution of French drama and the French novel in the 19th century with analysis and discussion. (Full course.)

Day Division: October to May, 1954-55, and alternate years.
Evening Division: October to May, every year.

French 119. French Literature of the 20th Century

A study of the French Novel, short story, and essays of the 20th century, and of modern criticism. (Half course.)

Day Division: January to May, 1954-55 and alternate years.
Evening Division: January to May, 1953-54 and alternate years.

GERMAN**German 101. Introductory Course in German Language**

A beginner's course in the German language which is designed, in one year, to make the student conversant with the grammar, pronunciation and ordinary vocabulary of the language, able to read from the less difficult authors, and able to write simple essays and letters. Emphasis is placed upon learning to speak the language, as well as to read and write it. (Full course.)

Day Division: October to May, every year.
Evening Division: October to May, every year.

German 102. German Language and Introduction to Literature

Advanced instruction in the language and an introduction to German literature. Emphasis upon idiom and usage in conversation and composition. A survey is made of the classical and modern periods in German literature and of other phases of Germanic culture. Representative readings from the works of the great writers in each period. (Full course.)

Day Division: October to May, 1953-54.
Evening Division: October to May, 1953-54.

GREEK**Greek 101. Introductory Course in Greek**

The purpose of this course is to enable a student, in one year, to gain an adequate knowledge of Greek grammar and syntax and to read simple passages of Greek quickly and accurately. (Full course.)

Day Division: October to May, every year.
Evening Division: Not given, 1953-54.

Greek 102. Greek Language and Literature

The purpose of this course is to complete the study of Greek grammar and syntax begun in Greek 101, and to enable students to read with greater accuracy and understanding by a wider study of Greek authors. (Full course.)

Day Division: October to May, 1953-54.
Evening Division: Not given, 1953-54.

Greek 103. Greek Literature

This is essentially a reading course, involving the study of certain of the great works of Greek Literature. The books to be read are one of St. Paul's Epistles, a book of Homer's Iliad, a speech of Lysias, and a Greek Play. It is assumed that students taking this course have an adequate knowledge of Greek grammar and a fair vocabulary. (Full course.)

Day Division: October to May, 1953-54.
Evening Division: Not given, 1953-54.

HEBREW**Hebrew 101. Introductory Course in Hebrew**

The purpose of this course is to enable a student, in one year, to gain an adequate knowledge of Hebrew grammar and syntax and to read simple passages of Hebrew quickly and accurately. (Full course.)

Day Division: October to May, 1953-54.
Evening Division: Not given, 1953-54.

HISTORY**History 101, 102, 103, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114.**

See the Social Sciences Division.

LATIN

Latin 100. Beginners' Latin

This course is designed for students who have had no previous Latin and is particularly recommended for those students who wish to be prepared for Latin 101. The course offers instruction in Latin Grammar, Translation and Prose Composition. Students who have received credit towards admission for High School Latin will not receive credit for this course. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, 1953-54.

Latin 101. Latin Composition and Translation

Advanced instruction in Latin prose composition and syntax with practice in sight translation. The course also includes translation and literary interpretation of prescribed selections from the Latin classics in poetry and prose. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Latin 102. Latin Literature

The purpose of this course is to provide students, interested in the subject, with a wider and deeper knowledge of the Roman people, their history, life and literature, by the reading of selected works of the best known Latin writers of the Late Roman Republic and the Early Roman Empire. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: Not given, 1953-54.

PHILOSOPHY

Philosophy 101. A General Study of Philosophical Problems

The purpose of this course is to distinguish philosophy from art, science, and religion; to study the critical work of philosophy with regard to some basic concepts and methods relevant to such fields; and to consider the constructive work of philosophy as shown in the development of major world-views.

Day Division: October to May, every year.

Evening Division: October to May, every year.

Philosophy 102. Great Philosophers, Ancient, Medieval, and Modern

This course aims to make the student conscious of his own intellectual heritage by means of a first-hand acquaintance with the thought of those philosophers, from Plato to the present day, who have been most influential in the moulding of the Western mind. It will also illuminate the character of philosophic problems by showing how they persist through a variety of forms, and are restated from age to age. Readings, lectures and discussions. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Philosophy 103. Contemporary Philosophy

Philosophy 101 or 102 is pre-requisite. A critical study of contemporary tendencies in Logic, Epistemology, Theory of Value, and Metaphysics. There will be readings and class discussions in respect of such philosophers as Santayana, Russell, Whitehead, and Dewey with special reference to their outlook on scientific methodology, education, ethical and aesthetic values, political and economic problems, and the philosophy of religion. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

Philosophy 104. Philosophic Ideas in Literature

This course is a critical survey of concepts that have been widely influential through poetry and prose. Theories of beauty, of knowledge, of human conduct and religion, and of cultural change receive special attention. Class discussion on masterpieces in world literature is particularly encouraged. Prerequisite: English 116 and one other full course in English literature. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Philosophy 105. Philosophy of Religion

This course considers the nature, method, and value of religion; the relation between religion and science, and between religion and philosophy; the concepts of God, prayer, evil, freedom, and immortality; and outstanding types of religious philosophy. (Half course.)

Day Division: October to January, 1953-54 and alternate years.

Evening Division: October to January, 1954-55 and alternate years.

Philosophy 106. Logic and Scientific Methods

Beginning with stress on different functions of language and on errors in symbolism, this course considers the problem of definition, deductive and inductive fallacies in argumentation, the problem of observation, the formation of hypotheses, what follows from premises, analytic and synthetic propositions, verification, alternatives to reflective thinking, and method in the social sciences. (Half course.)

Day Division: October to January, 1954-55 and alternate years.

Evening Division: October to January, 1953-54 and alternate years.

Philosophy 107. Ethics

This course considers the evolution of morality, theories of morality, the relation of morality to religion, the relation of ethics to psychology, problems of personal morality, and problems of public morality. (Half course.)

Day Division: January to May, 1954-55 and alternate years.

Evening Division: January to May, 1953-54 and alternate years.

Philosophy 108. Systems of Philosophy

Philosophy 101 or 102 is pre-requisite. This course seeks finer appreciation of attempts to consider man and nature from a persisting point of view. Among the systems of philosophy considered are supernaturalism (including Scholasticism), naturalism (including dialectical materialism), idealism, realism, and pragmatism. Special attention is given to students desiring discussion on implications of their own world-view. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Major in Philosophy

Attention is called to the statement on majors on page 46.

SPANISH

Spanish 101. Introduction to the Spanish Language

A beginner's course in the Spanish language, which is designed in one year to make the student conversant with the main grammatical principles, pronunciation and ordinary vocabulary of the language. Practice is given in reading, writing and conversation, particular emphasis being placed on oral work. In the second term classes are conducted as far as possible in Spanish. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Spanish 102. Intermediate Spanish

In this course conversation and reading are continued and more work is offered in translation and composition. Included also are readings from Spanish literature, designed to aid in the development of effective expression in the language. As far as possible all classes are conducted in Spanish. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Spanish 103. Advanced Spanish

Translation, composition, correspondence, and essay-writing of an advanced character. Ample opportunity will be given for conversational practice and self-expression in the language, to which particular importance is attached. All lectures will be conducted in Spanish. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, every year.

Spanish 104. Advanced Oral Spanish

This course is devoted almost entirely to oral expression. Special stress will be placed on conversation practice, short talks, oral book reviews, vocabulary building and discussions on current themes. The size of the class is limited to twelve students. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, 1953-54.

THE SOCIAL SCIENCES DIVISION**Social Science 101. General Course in the Social Sciences**

This pandemic course has the same point of view and objectives with regard to the social sciences as Natural Science 101 has regarding the physical sciences. It has a twofold purpose; first, to introduce the student to some of the basic concepts and subject matter of the various social sciences; secondly, to provide him with some knowledge of contemporary society and the problems which confront it. The social sciences surveyed are Anthropology, Psychology, Sociology, Human Geography, History, Economics, and Political Science. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

ECONOMICS

Note: Economics 101 is a prerequisite for all other courses in Economics except for Economics 102 and 106.

Economics 101. Introduction to Economics

This course is designed to meet the needs of the general student as well as of the student who is proceeding towards a major in Economics. The course will introduce basic principles of Economic Theory in the field of exchange, production and distribution of wealth, tracing the process of price determination; the Concepts of Elasticity of Demand and Supply; various Value Schools with special emphasis on the Marginal School; Theories of production; Elementary analysis of the theory of the firm; theories of wages, profit, rent and interest; the relation

between the individual firm and the whole economy; some basic concepts of Welfare Economics; an introduction to the Theory of Money and Banking; elementary treatment of international trade; business cycles; national income analysis, etc. (Undergraduates are advised to take Social Science 101 prior to or concurrently with Economics 101). (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Economics 102. General Economic History

This course is designed as a general inquiry into the process of economic change from the beginnings of the ancient civilizations to the present day. Emphasis is placed on the Western World. An attempt is made to test some basic principles of Dynamic Economic Theory by historical evidence and the application of the historical method. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

Economics 106. International Economic Relations

This course deals with the theory of international values, the mechanism of adjustment of international balances, foreign exchange theory, the international aspects of monetary and banking theory, and tariff theory. A survey is also made, with particular reference to Canada, of the international aspects of the economic policies and activities of governments, including such topics as: commercial treaties, colonial policies, international capital investments, control of raw materials, economic factors in war and diplomacy. It is preferred that Economics 101 be taken previously. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Economics 107. Labor Economics

A study of the theoretical, institutional and sociological aspects of labor relations. In particular, the course will deal with a survey of modern wage theory; the theory and practice of collective bargaining; the scope and limitations of the sociological approach; the history and functioning of trade unions, particularly in Canada; the role of the government and the legislative process in labor relations. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

Economics 108. Money and Banking

This course deals with the basic principles of Money and Banking and the role of financial institutions in the modern society; the structure of the monetary and banking systems of Canada, Great Britain and the United States; the problems of Central Banking; international exchange; international credit institutions. Particular attention is paid to monetary theory in relation to business cycle theories. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

Economics 109. History of Economic Thought

A brief study of the development of economic thought, with special emphasis on the classical and Neo-classical period, as an introduction to modern economic theories. Economics 102 should be taken previously. (Full course).

Day Division: October to May, 1953-54 and alternate years.
Evening Division: October to May, 1954-55 and alternate years.

Economics 110. Economic History of Canada and the United States

This course aims to trace the significance of economic factors in the development of Western Civilization on North America. Emphasis is put on the process of exploration, the geographical background, territorial expansion. Problems of staple production as the fishing industry, the fur trade and its impact on the social and economic development of U.S. and Canada. The rise of the lumber industry, agricultural development, mining, pulp and paper, transportation, hydro electric power. An attempt to trace the inter-relationship between technological innovations and the business cycle in Canada. Some attention may be given to the impact of wars on the Canadian economy. (Full course.)

Day Division: October to May, 1954-55 and alternate years.
Evening Division: October to May, 1953-54 and alternate years.

Economics 111. Advanced course in Economic Theory

This course is designed for the student majoring in economics. It deals mainly with the theory of price and the theory of distribution. These are some of the problems studied:—the theory of demand with special emphasis on the nature, scope and application of the indifference curves; static and dynamic economics; the production function; cost analysis; pricing of productive services; the theory of imperfect competition; demand, cost and pricing of factors under imperfect competition; the theory of multiple products; the theory of capital and interest, etc. Economics 102 and 109 should be taken previously. (Full course.)

Day Division: . . . Not given, 1953-54.
Evening Division: October to May, 1953-54.

Economics 112. Public Finance and Fiscal Policy

The course is a general study of the principles and practice of government finance. An examination will be made of the chief categories of tax and expenditure, illustrations being based on Canadian experience. There will also be discussion of such current topics as unemployment, inflation, war finance, public debt, and Dominion-Provincial relations. (Half course.)

Day Division: January to May, 1954-55 and alternate years.
Evening Division: January to May, 1953-54 and alternate years.

Economics 113. Business Cycle Theory

This course deals with the fluctuating trend of the modern economy. A survey of Business Cycle theories is introduced. Thorough analysis of the forces responsible for the rising significance of business fluctuation is discussed. Special emphasis on problems of measuring the cycle and business forecasting. An attempt is made to relate micro-economics (the theory of the firm) to macro-economics (problems of the economy as a whole). Particular attention is paid to Keynesian Economics and problems of planned Economics. Economics 109 should be taken previously. (Half course.)

Day Division: October to January, 1954-55 and alternate years.
Evening Division: October to January, 1953-54 and alternate years.

Economics 114. Economic Statistics

Prerequisite: Mathematics 103. The course is an introduction to statistical techniques as applied to economic problems. It serves as a continuation of Mathematics 103 for those who have had a first course in Economics. Special attention is given to index-number construction, time-series analysis, and elementary correlation and sampling. Attention is also paid to source materials, especially for Canadian statistics. (Half course.)

Day Division: January to May, 1954-55 and alternate years.
Evening Division: January to May, 1953-54 and alternate years.

Economics 115. Econometrics

Prerequisite: Mathematics 101. The subject matter of the course is the application of statistical and mathematical methods to economics. The course will include instruction in such mathematics as are required for an understanding of much modern economic theory, and will also deal with the theory as such. Readings, so far as possible, will be assigned from Journal articles.

Day Division: Not given, 1953-54.
Evening Division: January to May, 1954-55 and alternate years.

Economics 116. Comparative Economics

This course is designed as a study of applied economics. The relationship between theory and economic systems will be traced to economic development. The principles of welfare economics shall serve as a point of departure and criterion for an objective evaluation of the economic systems of capitalism, the corporative state, the semi-planned socialistic society, the planned economy, the Communist version of a planned economy, etc. A closer integration between economic analysis and its relationship to economic systems as a whole will be stressed. This course should serve as a link between economics and sociology and anthropology and thus contribute to a closer integration of the social sciences. Sociology 102 should be taken previously. (Half course.)

Day Division: Not given, 1953-54.
Evening Division: October to January, every year.

Major in Economics

Attention is called to the statement on Majors on page 45.

EDUCATION

Note: Several of the courses listed below are designed primarily for teachers and for students who intend entering the profession of teaching or of social work.

Education 101. Principles of Education

The development of educational theory will be studied and attention will be given to the writings of Plato, Medieval, Renaissance, and Reformation educators, Comenius, Rousseau, Pestalozzi, Froebel and Dewey. Although teachers usually receive credit for a course in the philosophy of education taken in a School for Teachers they may also take this course for credit. (Half course.)

Day Division: Not given, 1953-54.
Evening Division: October to January, every year.

Education 102. Adult Education

The philosophy, programs and methods of adult education are examined. Particular attention is given to the history and current developments of adult education in Denmark, Russia, Great Britain, the United States, and Canada. The course is designed for teachers, Y.M.C.A. secretaries, or social workers, as well as for third or fourth year students who are considering a career in some phase of Adult Education. (Half course.)

Day Division: Not given, 1953-54.
Evening Division: January to May, every year.

Education 103. Principles of Religious Education

In this course are considered the basic concepts underlying an educational approach to religion with particular reference to the teaching of Jesus as fundamental. An attempt is made to develop the major theses of the course out of the experiences of the class members. This course and the following are suitable for teachers, Christian Association secretaries, group leaders, etc. This course may not be taken by first year students. (Half course.)

Day Division: October to January, 1953-54 and alternate years.

Evening Division: Not given, 1953-54.

Education 104. Curriculum and Practice in Religious Education

The major questions of method in religious education are dealt with. Contrasts between divergent theories of the curriculum are discussed as well as various aspects of character development. Types of learning and activity as related to character and personality growth are considered at length. Pre-requisite: Education 103. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: Not given, 1953-54.

Education 107. The History and Organization of Education in Canada

The course will deal with the social, cultural, and intellectual factors inherent in the development of Canadian education. Special attention will be given to the rise of the state-supported school systems in the various provinces. The chief emphasis, however, will be placed upon the unique system of education in the Province of Quebec. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: January to May, every year.

See also: Psychology 103, Educational and Vocational Guidance.

Psychology 105, Psychology of Education.

GEOGRAPHY**Geography 101. Human Geography**

A general introduction to geography which is intended to encourage an appreciation of the relationship existing between physical and cultural distributions over the earth's surface. This course will be concerned with the physical environment and man-land relationships, the broad global patterns of climate, landforms, vegetation, natural resources, and population. The usefulness of a geographic approach to modern problems such as regional planning, the habitability of marginal areas, and resource conservation will also be considered. Area studies will be introduced from time to time to illustrate the role of geography. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Geography 102. Economic Geography

This course deals with the way in which geographic conditions influence, and have influenced, the products, the occupations, and the ways of life of the various peoples of the world, and provides an understanding of the natural resources of the world, and the geographical factors which affect their exploitation, transportation and use in the satisfaction of wants. (Half course.)

Day Division: January to May, 1953-54.

Evening Division: January to May, 1953-54.

HISTORY**History 101. History of Early Civilization**

The story of early mankind is outlined so far as it is known at present, and the origins of the great civilizations of today in Europe, Asia, and America are studied. This survey includes the 'mediaeval' or transition period leading to the emergence of the economic, social, political, and religious characteristics of modern times. An introductory course. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

History 102. History of Europe Since 1400

This course deals with the general history of Europe since the break-up of the mediaeval order, including a study of developments since 1939. Emphasis is placed on the history of western civilization as it has developed in France and in the other parts of Europe from which large numbers of people have come to Canada, in order to give a better idea of the value of this heritage, and a broader view of Canadian cultural and political problems. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

History 103. History of Modern Civilization

A survey of civilization from the beginnings of the modern era (about 1650 A.D.) to the present day. Particular attention is paid to the development of Asia and her place in the new era. Emphasis is placed upon the historical background of outstanding elements and problems in the present world political, social, and economic situation, and developments in science, philosophy, and the arts. It is recommended that History 101 be taken before this course. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

History 105. History of the Latin American Republics

This course deals with the political, social, and economic history of Mexico and the countries of South America. The development of each is studied, with special reference to their interdependence. The growth of Inter-Americanism is traced, and attention is given to the place of Latin America in the modern world. (Half course.)

Day Division: October to January, every year.

Evening Division: October to January, every year.

History 106. History of the United States of America

This course deals with the growth of the United States from its colonial beginnings. The character of the population, the government, and the various voluntary political and labor organizations are studied from an historical point of view. Special attention is paid to the development of foreign policy and to the present position of the country in world affairs. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

History 107. History of Social and Political Ideas

A study of the origins and development of the social and political ideas which are current in the world today. The historical approach is used to provide a sound basis for the understanding of contemporary ideologies, particularly democracy, communism and fascism. Students are required to complete History 102 or 103 before taking this course. (Half course.)

Day Division: January to May, 1953-54 and alternate years.

Evening Division: January to May, 1953-54 and alternate years.

History 108. History of the Commonwealth of Nations

The development of the Commonwealth is surveyed from Tudor times to the present. The emphasis is placed upon the history of the various units, such as Australia, from the point of view of the people living in the particular area under study. An attempt is made to understand the position of the Commonwealth of Nations in the world to-day, and its probable role in the future. (Half course.)

Day Division: October to January, 1954-55 and alternate years.
Evening Division: October to January, 1954-55 and alternate years.

History 109. History of French Canada (1534 to Present)

A study of Canada under the French Regime, and of Quebec during the British period. An opportunity is provided in this course to survey the history of the French Canadians from the first settlement on the St. Lawrence to the present day, and also of the English speaking minority in the Province during the years since the conquest of 1760. It will be of benefit to students if they complete French 101 before taking this course. (Full course.)

Day Division: October to May, 1953-54 and alternate years.
Evening Division: October to May, 1953-54 and alternate years.

History 110. History of Canada Since 1783

This course is a study of the growth of the Canadian nation. From a knowledge of the evolution of Canadian institutions the student is led to analyse more adequately the present problems of the nation. While the political thread will run throughout, economic and cultural factors will be discussed. The significance of sectionalism, imperialism, and nationalism will be examined. (Full course.)

Day Division: October to May, 1954-55 and alternate years.
Evening Division: October to May, 1954-55 and alternate years.

History 111. History of Russia

This course traces the origin of the Slavic speaking peoples in Europe and the emergence of the Russian Empire. It discusses the ideology and history of bolshevism, and the period under communist government in the U.S.S.R. and among the Slavic peoples. Students are required to complete a course in European history before taking this course. (Half course.)

Day Division: October to January, 1953-54 and alternate years.
Evening Division: October to January, 1953-54 and alternate years.

History 112. History of Britain (1485 to Present)

A survey of the political, economic, and social development of modern England. Emphasis is placed on the evolution of parliamentary government in the early period, on the economic changes of the eighteenth and nineteenth centuries, and on the modern growth of democracy and the social service state. It is recommended that a course in European history be taken prior to this course. (Full course.)

Day Division: October to May, 1953-54 and alternate years.
Evening Division: October to May, 1953-54 and alternate years.

History 113. History of India

This is a study of the origin and development of India and Pakistan. The historical background will be traced from the dawn of civilization in India, but the emphasis will be on the period since 1919. Particular attention will be paid to the life of Gandhi and the writings of Nehru. (Half course.)

Day Division: January to May, 1954-55 and alternate years.
Evening Division: January to May, 1954-55 and alternate years.

History 114. History of China

This course surveys the development of China since the dawn of civilization, with special emphasis on the period since 1890. Particular attention is paid to the invasion of China by the western powers, and to Chinese reaction to this development. (Half course.)

Day Division: January to May, every year.
Evening Division: January to May, every year.

Major in History

Attention is called to the statement on majors on page 46.

POLITICAL SCIENCE**Political Science 101. Introduction to Political Science**

A study of the origin and nature of the State, and the relation of the individual to it. The course will deal with the nature and interpretation of law, constitutions, division of powers of government, organization of political parties, formation of public opinion, the function of Parliaments, the different types of cabinet systems, the problems of municipal government, associations of states, Nationalism, and Imperialism, and the causes of international conflict. (Full course.)

Day Division: October to May, every year.
Evening Division: October to May, every year.

Political Science 102. International Political Relations

This course will deal with the following topics: the rise of the Western state-system; nationalism and national sovereignty; imperialism and the balance of power; power politics in war and peace; internationalism and international organizations; international law and international government. Through lectures and class discussions the student will gain some knowledge of the complex pattern of international relations which will serve as a basis for evaluating current events in the modern world in which we live. Prerequisite: Political Science 101. (Full course.)

Day Division: October to May, 1954-55 and alternate years.
Evening Division: October to May, 1953-54 and alternate years.

Political Science 103. Elements of Law

This course is designed to provide students with an elementary knowledge of those institutions and problems of the Law with which they may reasonably be expected as citizens to have some understanding and appreciation. As a background to this study the meaning of law and its various divisions will be treated with a view to relating the legal order to present day problems of society. Topics will include the organization and functioning of the Federal and Provincial court systems including the appointment and selection of the Judiciary; the various stages in a lawsuit; a brief consideration of the Quebec civil law as it affects questions of marriage and the more common contracts such as sale, lease and partnership. (Half course.)

Day Division: October to January, 1953-54 and alternate years.
Evening Division: October to January, 1954-55 and alternate years.

Political Science 104. Problems of Public Administration

This course deals with the nature and function of the administrative branch of government. The student is introduced to such problems as the proper organization of government departments, the management of government corporations, budgeting, selection and training of personnel and maintenance of morale and discipline, relationship between legislature and administration, relationship between the administration and the public. Prerequisite: Political Science 101. (Half course.)

Day Division: October to January, 1953-54 and alternate years.
Evening Division: October to January, 1954-55 and alternate years.

Political Science 105. Political Theories, Ancient and Modern

A critical study and analysis of the great thinkers on the problems of politics; Plato, Aristotle, Machiavelli, Hobbes, Locke, Rousseau, Hegel, Marx, Mill, etc. This course is designed to give a survey of systematic political reasoning from the classical period up to the present time in an endeavour to show the foundations of modern political thought. Prerequisite: Political Science 101 or Philosophy 101. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Political Science 106. Government and Politics of Canada.

A study of the British North America Act and its judicial interpretation; the nature of Canadian federalism; the parliamentary system; nature and organization of political parties; provincial and municipal governments; law and the courts; foreign policy. (Half course.)

Day Division: October to January 1953-54 and alternate years.

Evening Division: October to January, 1954-55 and alternate years.

Political Science 107. Structure and Function of the United Nations

The purpose of this course is to provide the student with a working knowledge of the underlying philosophy and basic principles of the United Nations Organization as well as the nature and function of the various agencies of which it is composed. The student will become acquainted with the role of the General Assembly, the Security Council, Trusteeship Council, Economic and Social Council and other bodies set up for the purpose of fostering international peace and co-operation. (Half course.)

Day Division: Not given 1953-54.

Evening Division: January to May, 1953-54.

Political Science 108. Political Parties and Public Opinion

A study of the ideology and organization of political parties in Canada, United States, and the major countries of Western Europe; the factors entering into the formation of public opinion, role of pressure groups, and the techniques of political propaganda. Prerequisite: Political Science 101, or Sociology 102. (Half course.)

Day Division: January to May, 1953-54 and alternate years.

Evening Division: January to May, 1954-55 and alternate years.

Political Science 109. Local Government and Administration

This course is designed to provide a survey of the theory and practise of local government and administration. The student will be introduced to such topics as the organization and powers of units of local government, the administration of municipal services, problems of municipal finance, the government of metropolitan areas, and provincial-municipal relations. While principal emphasis will be placed on the development of local government in Canada, some time will be devoted to a consideration of British and American experience. Prerequisites: Political Science 101 and preferably 104. (Half course.)

Day Division: January to May, 1953-54 and alternate years.

Evening Division: January to May, 1954-55 and alternate years.

See also: History 107, History of Social and Political Ideas, and Economics 112, Public Finance and Fiscal Policy.

Major in Political Science

Attention is called to the statement on majors on page 47.

PSYCHOLOGY

For regularly enrolled undergraduates, psychology is a second year subject to be preceded by Natural Science 101, Social Science 101, or Biology 101. Partial students may be admitted by special permission to Psychology 101, which is a prerequisite to all other courses in Psychology.

Psychology 101. A General Study of Mind and Behaviour

The purpose of this course is the development of an adequate understanding of human behaviour and experience. The work includes a study of the sense organs and nervous system, perception, learning, memory, motivation and the basic urges, emotional reactions, personality development, adjustment and integration, abnormal personality, mental abilities and aptitudes, and the application of psychological findings to the problems and activities of everyday life. This course is prerequisite to all other courses in psychology listed below. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Psychology 102. Advanced General Psychology

This course makes a more detailed study of general, physiological, and individual psychology. The work includes an outline of the history of psychology, the various schools of psychological thought and their historical background, psychoanalysis, and individual differences, normal and abnormal. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Psychology 103. Vocational Guidance

A course in the functions and methods of vocational and educational guidance occupational information; study of the individual through interviews and aptitude tests; counselling regarding vocational and educational plans. Laboratory work involving detailed study of tests for measuring abilities, aptitudes, proficiency, interests, and personality traits, and their vocational significance. Lectures and laboratory. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, 1953-54.

Psychology 104. Industrial Psychology

A specialized course in the application of psychological principles to business and industry. This course will be concerned with such matters as: general principals of employee testing; the interview and related employment methods; training of industrial employees; work, fatigue, and efficiency. (Half course.)

Day Division: October to January, 1954-55, and alternate years.

Evening Division: October to January, 1953-54, and alternate years.

Psychology 105. Psychology of Education

A course for advanced students on the psychology of education, both formal and informal. In this course students will consider not only the teaching of skills and information, but also the broader problems of education as the full growth and adjustment of persons in society. (Half course.)

Day Division: January to May, 1954-55 and alternate years.

Evening Division: January to May, 1953-54 and alternate years.

Psychology 106. Social Psychology

A study of the individual in his socio-psychological environment, the cultural and hereditary determinants of behaviour, the uniformities and variations among human beings, sex and race differences as determined by cultural patterns, the social significance of language, social interaction, attitudes, stereotypes, propaganda, race prejudice, public opinion, and morale. (Half course.)

Day Division: October to January, 1953-54 and alternate years.

Evening Division: October to January, 1954-55 and alternate years.

Psychology 107. Personality and Mental Hygiene

The course deals with the nature of personality, the correlation of mental characteristics with physical traits, bodily form and expressive movements, the analysis of intellect, temperament and character, the integration and development of personality and its relation to the patterns of culture, the problem of types, adjustment and resolution of conflict, personality tests, rating scales and inventories. (Half course.)

Day Division: January to May, 1953-54 and alternate years.

Evening Division: January to May, 1954-55 and alternate years.

Psychology 108. Psychology and Crime

A specialized course in the application of psychology to problems of legal procedure, crime and punishment. The course includes the study of the psychology of the judge, the jury, the witness, the police and the criminal. Discussion of the social and psychological factors contributing to crime and delinquency, and consideration of the various penal methods also is included. (Half course.)

Day Division: October to January, 1953-54 and alternate years.

Evening Division: October to January, 1954-55 and alternate years.

Psychology 109A. Physiological Psychology

This course attempts to relate neurophysiology to such psychological problems as learning, attention, and emotion. The topics treated include: excitation and conduction in the neuron; synaptic mechanisms; sensory and motor systems; the internal environment; the electrical activity of the brain. Emphasis is given to brain damage studies in animals and man, and the problem of localization of function in the nervous system. (Half course.)

Day Division: October to January, 1953-54 and alternate years.

Evening Division: October to January, 1954-55 and alternate years.

Psychology 109B. Comparative Psychology

The comparative method in the study of psychological problems, the evolution of behavior and its mechanism from protozoa to man, discussion of tropisms, reflexes, instincts, needs, sensory capacities, learning, thinking, feeling, and some apparently mysterious powers of animals and man. Prerequisite: Psychology 109A (unless exemption is granted by the instructor). (Half course.)

Day Division: January to May, 1953-54 and alternate years.

Evening Division: January to May, 1954-55 and alternate years.

Psychology 110. Child Development

A survey of the growth and development of the child from infancy to maturity. The course will include discussion of physical, mental and social age norms, the results of experimental, clinical, and psychometric investigations, and the application of scientific findings in the care and training of children. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Major in Psychology

Attention is called to the statement on majors on page 47.

SOCIOLOGY**Sociology 102. Introductory Sociology**

The student is introduced to objective studies of social processes in human societies, and is made familiar with the terminology of modern sociological science. The purpose of this course is to develop an understanding of the emergence of human nature and an understanding of the forms and processes of group life. Social Science 101 should be taken previously or concurrently. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Sociology 103. Social Change

A brief treatment of theory concerning social organization, followed by an extended survey of the effects of technology on societies, special attention being given to Canada and the U.S.A. A survey is made of the remedial measures developed to correct conditions of individual and group maladjustment. Prerequisite: Sociology 102. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, 1953-54.

Sociology 104. General Anthropology

The evolution of man and his culture to the historical era; the differentiation of races and the problem of race superiority; general principles of cultural anthropology; the origin and development of social, economic and political institutions; marriage, the family, religion, art, science, and other problems of culture. (This course may be taken for credit either as a Social Science or as a Natural Science.) (Half course.)

Day Division: October to January, 1954-55 and alternate years.

Evening Division: October to January, 1953-54 and alternate years.

Sociology 105. Social Movements and Institutions

The nature and functions of social movements in general, and the characteristics of some modern social movements, are studied. The second half of the course deals with the nature and functions of institutions. Special attention is paid to movements and institutions which evolve to meet the particular problems and needs of urban communities. Prerequisite: Sociology 102. (Full course.)

Day Division: October to May, 1954-55 and alternate years.

Evening Division: October to May, 1953-54 and alternate years.

Sociology 106. The Modern Community

The physical and social characteristics of urban communities are studied, with special attention paid to ecological patterns and ecological processes. Forms of adjustment, co-operation and control are included in these studies. Prerequisite: Sociology 102. (Half course.)

Day Division: October to January, 1953-54 and alternate years.

Evening Division: October to January, 1954-55 and alternate years.

Sociology 107. The Family

The forms, functions, and problems of modern families are studied. The course includes some treatment of theory concerning origins of human family structures and concerning interaction between family members. Early adjustment problems in marital relationships also are discussed. Prerequisite: Sociology 102. (Half course.)

Day Division: January to May, 1953-54 and alternate years.

Evening Division: January to May, 1954-55 and alternate years.

Sociology 108. Applied Sociology

A series of three courses (Sociology 108a, 108b and 108c) in the practical aspects of the work of the Christian associations and allied institutions. Such topics as leadership training, boys' clubs, principles of group work, camping and business administration are dealt with. An attempt is made to make these courses as practical as possible by use of the resources of the Y.M.C.A. and other agencies in Montreal. These three courses are given in rotation, one each year, so that an individual may take them all in any three-year period. They should be taken by undergraduates only in conjunction with other courses in the social sciences and are required in order to qualify for the Diploma in Association Science. (Half courses.)

Day Division:

Sociology 108a—Leadership of Informal Groups.

October to January, 1954-55 and every third year.

Sociology 108b—Administration of the Y.M.C.A. and similar Agencies.

January to May, 1953-54 and every third year.

Sociology 108c—History, Philosophy and Organization of the Y.M.C.A.

October to January, 1955-56 and every third year.

See also: Psychology 106, Social Psychology.

Psychology 108, Psychology and Crime.

Sociology 109. The American Indian

The advent of man to America; early cultural developments and the differentiation of the various groups or tribes; the culture of the Mayas, Toltecs, Aztecs, Pueblos, Iroquois, Eskimos, Northwest coast tribes, Andean and other early civilizations of North and South America; the cultural contributions of the Indian to the white man's civilization. Students will normally take Sociology 104 as a prerequisite. (Half course.)

Day Division: January to May, 1954-55 and alternate years.

Evening Division: January to May, 1953-54 and alternate years.

Sociology 110. Intergroup Relations

The interaction of ethnic groups in various parts of the world is studied, with emphasis on intergroup contacts in the Western world. Theories of race, racial prejudice, and specific situations of conflict and accommodation are examined. Prerequisite: Sociology 102. (Full course.)

Day Division: October to May, 1953-54 and alternate years.

Evening Division: October to May, 1954-55 and alternate years.

Sociology 111. Immigration

The course is designed to introduce the student to the principles of the immigration policies of the Canadian Government and relate them to Canada's social, economic, and population needs; to acquaint students with human material coming to Canada, its cultural, religious, and economic background; to throw some light on the impact of immigration on Canadian economic and social life, on problems of adjustment, and some means of dealing with them. Prerequisites: Social Science 101, Sociology 102. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: January to May, 1953-54.

Major in Sociology

Attention is called to the statement on majors on page 47.

**COMMERCE DIVISION
ACCOUNTANCY****Accountancy 101. Elementary Accounting**

This is an introductory course in accountancy in which are presented the fundamental principles with particular emphasis upon the application of those principles through modern procedure. It includes recording of debits and credits showing increases and decreases in ledger accounts with assets, liabilities and net worth; journalizing, posting, use of special books of original entry, columnar journals, voucher register, bill registers and control accounts; accounting for servicing, trading and manufacturing establishments; posting to general and subsidiary ledgers; preparation of working papers, adjusting and closing entries, locating errors, preparation and classification of manufacturing, trading and profit and loss statements, surplus statement, and balance sheets; forms of organization and accounting procedure for proprietorship, partnership and corporation, bank reconciliations, inward and outward consignments. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Accountancy 102. Intermediate Accounting

This course is designed for students who have successfully completed Accountancy 101 or its equivalent. It provides increased facility in the application of accounting principles to the more complex phases of commercial activity, with emphasis on the analytic methods and interpretive processes of the science, and relates particularly to the procedure of accounting for manufacturing establishments. It includes single entry, capital reconciliation and conversion to double entry; partnerships—organization, admissions, retirements, dissolutions and conversion to limited company; branch accounting; corporation-organization, capital structures, bonds, sinking funds, and reserves; methods of depreciation and disposal of fixed assets; preparation and analysis of financial statements, source and application of funds; application of the Dominion and Provincial Companies Act in relation to the procedure of accounting, and in the preparation of financial statements. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Accountancy 103. Cost Accounting

This is a course in cost accounting for students who have completed Accountancy 101 or its equivalent. It is desirable that Accountancy 102 be taken previously or concurrently. Designed to provide the student with a working knowledge of cost analysis, it covers the procedure required in accounting for material, labor, and manufacturing expense costs and includes a comprehensive outline of specific order, estimating, process and standard cost systems together with a discussion of elements of cost, relation of cost records to general accounts, and of cost statements to general statements. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Accountancy 104. Auditing and Investigation

This course on the principles underlying the practice of auditing, includes the purposes and advantages of an audit, types of audits and examinations, qualifications of an auditor, preparatory considerations, the use of working papers and audit programmes, systems of internal check, the audit of asset, liability, revenue and expense accounts and of business transactions generally, forms of fraud and its detection, the legal duties and responsibilities of auditors, and auditors' reports and certificates; investigations types, procedures and reports. Prerequisite: Accountancy 102 or equivalent. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Accountancy 105. Higher Accounting

A course in the principles of partnership and joint venture accounting; bankruptcy, trusteeship, receivership and estates; agencies and branches; mergers and consolidations; foreign exchange. It includes the preparation of statements on partnership dissolution and liquidation, the statement of affairs and deficiency account, receiver's and trustee's accounts, the realization and liquidation account, the consolidated balance sheet and surplus account. Prerequisite: Accountancy 102 or equivalent. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Major in Accountancy

Attention is called to the statement on majors on page 43.

COMMERCE**Commerce 105. Business Organization and Industrial Management**

This course in organization and management is designed to serve as an introduction to the various phases of business and industry and to provide some vocational orientation in the field of commerce. Topics included are: origin, growth, and classification of business organizations, types of securities, costing, marketing, advertising, plant location, production control, purchasing, wage systems and labour relations, transportation, managerial interpretation and use of financial statements and statistics, government regulations affecting business. This a second year course to be taken after Accountancy 101 or its equivalent has been completed. (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Commerce 106. Commercial Law

This course provides a general survey of the law obtaining in the Province of Quebec with special emphasis on the aspects thereof relating to business and commerce. It includes a basic outline of the law of Domicile, Marriage, Persons, Property, Ownership and its modifications, Successions, Gifts and Wills, Testamentary Executors, Trusts, Contracts, Quasi-Contracts, Offences and Quasi-Offences, Privileges, Hypothecs and Prescription, and a more detailed study of the Contracts of Sale, Lease and Hire of Things and of Work, Mandate, Loan, Deposit, Partnership, Suretyship, Pledge, Insurance, and an outline of the basic law applying to Negotiable Instruments, Joint Stock Companies, Bankruptcy and Winding Up, and Copyrights, Patents, and Trade Marks. [This course was formerly offered as two half-courses—Commerce 106-108. Taxation is covered in a separate course under Commerce 119.] (Full course.)

Day Division: October to May, every year.

Evening Division: October to May, every year.

Commerce 107. Advertising (Introductory)

This course explains the basic principles involved in creating advertisements and in carrying on complete advertising campaigns. Stress is placed upon the actual writing of copy and designing of layouts for various advertising media, an understanding of the processes of photo-engraving, the appreciation of advertising art, and a basic knowledge of advertising agency practice. See also Commerce 111. (Half course.)

Day Division: October to January, 1954-55 and alternate years.

Evening Division: October to January, every year.

Commerce 108. Commercial Law (Advanced)

This course continues the survey commenced in Commerce 106 and deals with: partnerships—forms of partnership and the rights and obligations of partners; corporations—the Dominion and Quebec Companies Acts are compared and applied to various companies. Companies are traced from their inception to their dissolution and the duties of the various officers are examined in detail: insurance—a study of the law regarding the operation of the various insurance companies in the Province of Quebec, the various forms of insurance and the rights and obligations of the parties thereto; a working knowledge of the Bankruptcy Act, the Bank Act, and the Income Tax Act; carriers and transportation; copyright, patents and trade marks; bills of exchange—negotiable instruments, particularly cheques, promissory notes and drafts. (Half course.) (See Commerce 106) This course is no longer offered.

Commerce 109. Transportation and Traffic (General Course)

Following a brief general study of the economics and history of transportation this course will act as an introduction to the subject of transportation and traffic management in Canada, including types of transportation service; rates and classifications, regional traffic problems and their relation to economic geography; and shipping principles and routine. This course is primarily for those who wish a general knowledge of transportation, and do not contemplate working or specializing in this field. The latter should take Commerce 109A. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: Not given, 1953-54.

Commerce 109A. Transportation and Traffic (Intermediate)

This course in freight traffic management is primarily for students who wish to specialize in this line of endeavour. It covers the practical aspects of transportation in Canada including such matters as bills of lading and shipping procedures; special services of railways; express; claims and claims prevention; and freight classifications. This course is planned in co-operation with the Quebec Division of the Canadian Industrial Traffic League, and the Industrial Traffic Study Group of the Montreal Young Men's Board of Trade. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Commerce 109B. Transportation and Traffic (Advanced)

This course in freight traffic management is primarily for students who wish to specialize in this line of endeavour. It covers the practical aspects of transportation in Canada including such matters as tariff construction and freight rate structures; condition of carriage; ocean freight contracts; marine insurance; customs; interpretation of the railway act and railway law. This course is planned in co-operation with the Quebec Division of the Canadian Industrial Traffic League, and the Industrial Traffic Study Group of the Montreal Young Men's Board of Trade. Commerce 109A is a pre-requisite. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Commerce 110. Marketing (Introductory)

This course is a general study of marketing functions, institutions, methods, and policies from the viewpoint of the businessman. Stress is placed on the management problems faced in the distribution field. Topics covered include retailing, wholesaling, merchandising, pricing, selling, and sales promotion, marketing research, distribution costs, and a general review of legislation affecting marketing. (Half course.)

Day Division: October to January, every year.

Evening Division: January to May, every year.

Commerce 110A. Marketing (Advanced)

This course is open to students who have completed Commerce 110, or who, in the opinion of the lecturer, have an equivalent working knowledge of marketing methods and practices. It deals more intensively with the topics covered in Commerce 110, and includes a study of marketing research, merchandising, distribution policies, sales promotion, sales organization and management, and the development of marketing programs. The Case Method is employed to illustrate the topics under discussion. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Commerce 111. Advertising (Advanced)

This course is open to students who have completed the course Commerce 107 or have an equivalent working knowledge of the theory and practice of advertising. Topics treated include: advanced study of the construction and styles of advertising copy; direct mail advertising; direct mail copy; format, lay-out and printing of mailing pieces; organization and execution of direct mail campaigns; house organs. Lectures, discussion, assignments, and criticism by the instructor. (Half course.)

Day Division: January to May, 1954-55 and alternate years.

Evening Division: January to May, every year.

Commerce 113. Company Secretarial Practice

Duties of the secretary of a limited company, including his statutory duties under the companies' acts, books and records to be kept, business problems to be faced, issuance of shares, and payment of dividends, preparation of governmental reports, and meetings of directors and shareholders. Pre-requisites: Accountancy 101, Commerce 106. (Half course.)

Day Division: January to May, every year.

Evening Division: October to January, every year.

Commerce 114A. Credits

This is a practical course covering the subject of credits and designed to help students of the Canadian Credit Institute. It covers duties and qualifications of a credit man; credit and its place in the business structure; credit instruments; sources of credit information; analysis of the credit risk; credit records; and types of credit. Visits will be made to Credit Departments and agencies. (Half course.)

Day Division: October to January, 1953-54 and alternate years.

Evening Division: October to January, every year.

Commerce 114B. Collections

This is a practical course covering the subject of collections and designed to help students of the Canadian Credit Institute. It covers collection follow-up systems; bad debt analysis; credit frauds; locating debtors; collection policies; and laws affecting collections including guarantee and suretyship, sale of goods, interest, limitations of actions with prescription, bankruptcy and insolvency, conditional sales agreements, and repossessions. Visits will be made to Credit Departments and agencies. (Half course.)

Day Division: January to May, 1953-54 and alternate years.

Evening Division: January to May, every year.

Commerce 115. Investment Analysis

This course covers the theory of investment from the standpoint of the investor, including such subjects as: evaluation of sources of financial information available to investors; study of media of investment; method of analysing corporation earnings statements and balance sheets; study of such investment factors as leverage, diversification, balanced portfolios; and the analyses of risks and returns on investments. Commerce 116 is a prerequisite. (Half course.)

Day Division: January to May, every year.

Evening Division: January to May, every year.

Commerce 116. Corporation Finance

A practical course dealing with the financial management of corporations. A study is made of various classes of stocks and bonds, of stock warrants and rights, of dividend and interest payments, of capital structures and security underwriting. Actual examples taken from Canadian corporation history are used to illustrate various points and well-known financial reference services available in Canada are used in connection with this course. Prerequisite: Accountancy 101 or equivalent. (Half course.)

Day Division: October to January, every year.

Evening Division: October to January, every year.

Commerce 117. Insurance

After a brief review of the history of insurance this course deals with various types of insurance organizations; the construction, use and characteristics of mortality tables; the calculation of premiums; the principles of reserves, dividends and investments; policy provisions and benefits; plans of insurance and legal aspects of insurance in Canada. The treatment is mainly descriptive and general problems of insurance are discussed. While the emphasis is on life insurance, other types of risk and risk-bearing are dealt with briefly. The treatment is both descriptive and mathematical. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: January to May, every year.

Commerce 118. Purchasing

A course designed to cover the fundamentals of purchasing policies and procedures and the organization and function of the purchasing department in business and industry. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, every year.

Commerce 119. Taxation

This course is devised to give authentic and up-to-date information on one of the major factors in business today. Discussion of problems is encouraged. Topics covered include: corporation and personal income taxes, sales taxes, succession duties, and other levies. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, and January to May, every year.

Commerce 121. Stenography

This course is no longer offered for credit in the college. Students wishing to develop a practical skill in this subject are referred to the Business School.

Commerce 122. Typewriting

This course is no longer offered for credit in the college. Students wishing to develop a practical skill in this subject are referred to the Business School.

Commerce 123. Office Management

A course in the principles of office management, including such topics as the function of the office in business; organization and principles of control; office systems and routines; office equipment and labour-saving devices; office planning and layouts; selection and training of office personnel; office communications. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: January to May, every year.

Commerce 124. Commercial Correspondence

Advanced instruction is given in commercial correspondence, with particular emphasis on the requirements of the General Accountants Association. Actual practice and constructive criticism are included. Types of letters covered include applications for position, inquiries and orders, adjustments and complaints, collections, and sales. Students are coached, also, in the techniques of dictation. (Half course.)

Day Division: October to January, and January to May, every year.

Evening Division: October to January, every year.

Commerce 125. Supervisory Training

The course deals with three supervisory skills: 1. Skill in Instructing, essential to convey knowledge possessed, and to delegate work; 2. Skill in Planning and Improving Methods, vital if satisfactory results are to be achieved by both the supervisor and those he guides; and 3. Skill in Leading and Working with People to maintain the co-operation and teamwork of staff. The course is based upon an adaptation of the United States Training-Within-Industry program which covers Job Instruction Training, Job Methods Training and Job Relations Training, sometimes referred to as the "J" series. Sessions are limited to a group of twelve persons. Those in managerial positions who are considering the introduction of these courses to their own enterprises should apply for admission to Executive Training 101. (Half course.)

Day Division: October to January, every year.

Evening Division: October to January, and January to May, every year.

Commerce 126. Job Analysis and Evaluation

This course deals with the practical aspects of introducing and operating a Job Analysis and Evaluation system for a representative enterprise. The course is planned to help students prepare a programme suited to the needs of their own firms. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: January to May, every year.

Commerce 127. International Trade

The course deals with the fundamental and practical aspects of importing and exporting, covering such subjects as trade terms and definitions, import and export regulations; export credits insurance; customs regulations; handling of export traffic; trading documents; air cargo and air express; marine insurance; financing. Lectures will be delivered by a variety of specialists following a programme developed in co-operation with the International Trade Section of The Montreal Board of Trade. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, every year.

Commerce 128. Personnel Management

This is a survey course of personnel administration for those presently fulfilling personnel or related responsibilities, and for senior students wishing to obtain a survey of the personnel field.

This course introduces the student to the various phases of the work and deals with such fundamentals as the organization and administration of a personnel department. It also covers personnel forms and records; presentation of statistical data; recruiting, selection, placement; job training; merit rating; job evaluation; wage structure; and force losses. It touches on the industrial relations aspect, and provides an appreciation of the various types of surveys including: morale; employee opinion; and wage surveys. (Full course.)

Day Division: Not given, 1953-54.

Evening Division: October to May, every year.

Commerce 129. Production Management

This course is to acquaint the student with the means used by management to control the output of a productive unit, and covers: tools of production, including reading of blue prints and use of machine tools; time study and standards; methods study and improvement; wage administration, including job and worker rating and incentive systems; control of manufacturing operations and organization relationships, including production controls of planning routing and scheduling, waste controls, inspection and quality controls, and standards of procedure and cost controls. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, every year.

Commerce 130. Labour Relations (Introductory)

This is a descriptive course dealing with the main elements in labour relations including company policy and practices, terms of employment, labour legislation, trade unions, collective agreements, conciliation, arbitration, and employee-management committees. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, every year.

Commerce 131. Labour Relations (Advanced)

This is an analytical course dealing with some of the more important labour relations activities in a company including the development of policy and practice manuals, preparation for collective bargaining, negotiation of agreements, handling of grievances, arbitration, application of labour legislation, and the operation of employee-management committee meetings. No student shall be registered for this course unless: (a) he has previously taken Commerce 130 or the equivalent; or (b) has had a sufficient amount of practical experience in the field of labour relations as to be considered the equivalent to both the practical and theoretical part of Commerce 130. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: January to May, every year.

Majors in Commerce

Attention is called to the statement on majors in Accountancy, Business Administration, and General Administration on pages 43-44.

EXECUTIVE TRAINING**Executive Training 101. Executive Skills**

This course deals with three basic executive skills, primarily from an office management point of view: 1. Skill in Instructing, which is essential if one is to be able to convey knowledge possessed, and delegate office work to others with confidence that it will be done as required; 2. Skill in Planning and Improving Methods, which is vital if satisfactory results are to be achieved from energy expended, by both the executive and those he guides; and 3. Skill in Leading and Working with People, which is very important, for unless a person can obtain and maintain the co-operation and teamwork of his staff, and work harmoniously with those around, he can hardly claim to be an executive. The course is based upon a clerical adaptation of the Instruction Training, Methods Training, and Relations Training Series of the United States Training-Within-Industry. Not only does it cover the three basic executive skills mentioned, but also presents a practical plan of application and follow-through in a representative office. A definite technique for manual or procedure writing is also presented for the consideration of the group. Registration for the course is limited to twelve persons, all of whom

must be in managerial positions where they can put to immediate practical use the principles discussed. The College reserves the right to select from those applying for registration the twelve who appear to be most likely to benefit from the course from the point of view of being able to make prompt practical use of the executive techniques recommended. Those who are not in a position to fulfil the above requirements should apply for admission to Commerce 125. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: Not given, 1953-54.

Executive Training 102. Analysis of Business Conditions

This is a course in the study and interpretation of current business conditions from the point of view of the man in business. The various measures available are thoroughly discussed as well as their sources and interpretation. Undergraduates in commerce will be admitted to this course if they have completed Commerce 105 or its equivalent. It is desirable that this course be taken prior to Executive Training 103. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, every year.

Executive Training 103. Business Planning and Budgeting

This course deals with the planning aspect of business administration and indicates how business operations may be planned through the use of a budgeting system. Various measures which may be used to assist in planning and controlling business operations are discussed, including cost-volume-profit analysis, break-even points, etc. Undergraduates in Commerce will be admitted to this course if they have completed Commerce 105 or its equivalent. It is desirable that this course be taken after Executive Training 102. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: January to May, every year.

Executive Training 104. Administration

This is an advanced seminar course for business executives who wish to bring themselves up to date on the latest developments in the field of administration. In order to qualify for membership in this group candidates must establish that they are members of a recognized professional body, active in the management field, or that they are holders of a recognized commerce degree. Final year undergraduates in Commerce will be admitted. Guest specialists are invited to outline the current position in their specialized field and a thorough discussion of the subject covered then takes place. In order to encourage maximum group participation the number of registrants is limited to about thirty. (Half course.)

Day Division: Not given, 1953-54.

Evening Division: October to January, every year.

MATHEMATICS

Mathematics 101C. Commercial Algebra

The course is designed to provide an adequate algebraic background for the commerce student and the necessary training pre-requisite to Mathematics 102. It includes a review of the elementary algebraic operations of addition, subtraction, multiplication, division, fractions, simple equations, and percentages. It also covers logarithms, ratio, proportion, arithmetic and geometric progressions, theory of quadratics, the binomial theorem, and graphical algebra. Students contemplating advance studies in the field of mathematics or commerce should take Mathematics 101 in preference to this course. Students who have not completed high school algebra or who require a refresher course should consider taking Mathematics 100 before this course. (Half course.)

Day Division: October to January, every year.

Evening Division: October to January, every year.

Mathematics 102. Mathematics of Finance

This course is an introduction to the theory of interest. It is designed to acquaint the student with those commercial problems involving simple interest; compound interest, annuities (ordinary, deferred, perpetuities and due) amortization and sinking funds, depreciation and bond values. Mathematics 101 (Algebra), Mathematics 101C, Algebra 55, or Intermediate High School Algebra is pre-requisite to this course. (Half course.)

Day Division: October to January, and January to May, every year.

Evening Division: October to January, and January to May, every year.

Mathematics 103. Statistical and Graphical Methods

This course provides the elementary principles of statistical method as applied in the scientific study and interpretation of economic and social phenomena. The course includes the collection of statistical data; various methods of presentation including tables and graphs; the frequency distribution and its mathematical analysis including averages, measures of dispersion, measures of skewness; normal curve; and correlation. This course is suitable for students in Psychology and Sociology and also for those who plan to enter the fields of Social Work or Education. Economics 114 is recommended as a sequel to this course. (Half course.)

Day Division: October to January, and January to May, every year.

Evening Division: October to January, and January to May, every year.

COMMERCIAL LANGUAGES

Commercial Language 101. (Now listed as Commerce 124)

INDEX

	Page
Academic year and class hours.....	27
Accidents, Responsibility for.....	22
Accountancy.....	51, 52
Administration (Course).....	102
Administration, Officers of.....	9
Admission, application form.....	Inside back cover
Admission to the College.....	24
Adult Education.....	85
Advanced standing, Application for.....	26
Advancement and examinations.....	28
Advertising.....	96, 98
Aims of the College.....	18
Analysis of Business Conditions.....	102
Announcements published by the College.....	Back
Anthropology.....	93
Art.....	52, 74-77
Arts, Curriculum for degree of Bachelor of Arts.....	38
Arts, Curriculum for diploma of Associate in Arts.....	40
Associate diploma.....	17, 40
Association of Alumni.....	22
Association Science, Diploma in.....	17, 40
Astronomy.....	56
Athletics.....	21
Auditing and Investigation.....	95
Bachelor's degree.....	17, 38
Bible, the English.....	72
Biology.....	57
Bookstore.....	31
Business Planning and Budgetting.....	102
Business Organization and Industrial Management.....	96
Calendar.....	4, 5
Captain's Chapel.....	24
Certificate of Credit.....	17
Certificates, diplomas and degrees.....	17
Certified General Accountant.....	52
Chapel.....	24
Chartered Accountant.....	52
Chemistry.....	59
Classification of Students.....	24
Co-education.....	18
Commerce Courses.....	95
Commerce, Curriculum for degree of Bachelor of Commerce.....	39
Commerce, Curriculum for diploma of Associate in Commerce.....	41
Commercial Algebra.....	102
Commercial Correspondence.....	100
Commercial Law.....	96
Company Secretarial Practice.....	98
Contents, Table of.....	3
Corporation of Sir George Williams College, The.....	7
Corporation Finance.....	99
Cost Accounting.....	95
Course Load.....	30
Course selections, 1st year.....	41, 42
Courses of study.....	55
Credits and Collections.....	98
Curricula:	
Associate in Arts.....	40
Associate in Commerce.....	41

Curricula: (Continued)

Associate in Science.....	40
Bachelor of Arts.....	38
Bachelor of Science.....	38
Bachelor of Commerce.....	39
Special programmes of study.....	47
Deferred payments.....	32
Degree of Bachelor.....	17, 38
Degrees, diplomas and certificates.....	17
Dentistry, preparation for.....	49
Diplomas of Associate.....	17, 40
Diploma in Association Science.....	17, 40
Diplomas, degrees and certificates.....	17
Divisions of the College.....	37
Draughting.....	62
Drawing, mechanical.....	63
Drawing and painting.....	75
Ecology.....	58
Economics.....	82
Education, Courses in.....	85
Engineering, Courses for practical engineers.....	51
Engineering matriculation.....	47
English.....	70
Enrollment.....	18, 28
Entrance requirements.....	24
Equipment of the College.....	22
Evening division.....	20
Examinations and advancement.....	28
Executive Skills.....	101
Executive Training.....	102
Extra courses.....	30
Extra-curricular activities.....	21
Facilities of the College.....	22
Faculty Council.....	9
Fees.....	30
Finance, Corporation.....	99
Finance, Public.....	84
Fine Arts.....	21, 74
First year course.....	41
French.....	77
French-Canadian Literature.....	78
General Accountants Association.....	52
General Statement.....	17
Genetics.....	57
Geography.....	86
Geology.....	56
German.....	79
Governors, Board of.....	9
Grading system.....	30
Graduates.....	22
Graduate faculties and university professional schools, Recommendation to.....	48
Greek.....	79
Guidance, Student.....	19
Gymnasium.....	24

	Page
Health Programme.....	22
High School, Sir George Williams.....	25
Historical statement.....	2
History.....	87
Humanities, general course.....	69
Humanities division.....	37, 69
Instruction, Officers of.....	10
Insurance.....	99
International Trade.....	100
Investment Analysis.....	98
Job Analysis and Evaluation.....	100
Laboratories.....	22, 23
Labor Relations.....	101
Latin.....	80
Law, Commercial.....	96
Law (Industrial Legislation), see Economics.....	82
Law, see Political Science.....	89
Length of courses.....	21
Librarians.....	16
Library.....	24
Majors.....	43
Marketing.....	97, 98
Mathematics.....	63, 102
Mathematics of Finance.....	103
Matriculation into the College.....	24
Mechanical drawing.....	63
Medicine, preparation for entrance to.....	48
Modelling and Sculpture.....	76
Music.....	21, 74
Natural Science, general course.....	56
Natural Sciences division.....	37, 56
Office Management.....	99
Office of the College.....	31
Outlines of subjects.....	55-103
Painting and drawing.....	75
Partial course students.....	21, 24, 25
Payments.....	31
Personnel Management.....	100
Philosophy.....	80
Physics.....	66
Physiology.....	57
Political Science.....	89
Practical engineers, Courses for.....	51
Prizes and scholarships.....	34-36
Production Management.....	
Professional schools and graduate faculties, Recommendation to.....	48
Psychology.....	91
Public Administration.....	89
Publications of the College.....	Back
Public Finance.....	84
Public speaking.....	73
Purchasing.....	99

	Page
Radio.....	67, 68
Recommendation to graduate faculties and university professional schools.....	48
Registration.....	30
Regulations, Summary of.....	53, 54
Religious education.....	86
Residence.....	24
Scholarships and prizes.....	34-36
Science, Curriculum for degree of Bachelor of Science.....	38
Science, Curriculum for diploma of Associate in Science.....	40
Sculpture.....	76
Secretarial Practice, Company.....	98
Secretarial training.....	52
Selection of courses.....	41, 42
Sir George Williams High School.....	25
Social Science, general course.....	82
Social Sciences division.....	37, 82
Sociology.....	93
Spanish.....	81
Special programmes of study.....	47
Statistical and graphical method.....	64, 102
Student guidance.....	19
Student organizations.....	21
Subjects.....	55-103
Summer term.....	28
Supervisory Training.....	100
Supplemental examinations.....	29
Swimming Pool.....	24
Taxation.....	99
Teachers, School for.....	50
Textiles.....	50, 68
Timetables of instruction.....	27
Transportation and Traffic.....	97
Withdrawal and refund.....	33
Women students.....	18
World Service.....	22
Y.M.C.A. Secretaryship training.....	48
Zoology.....	58

**Announcements of Sir George Williams College and the Sir
George Williams Schools which may be obtained from the
Registrar.**

Sir George Williams College (Faculties of Arts, Science, and Commerce), day and evening divisions.

Sir George Williams High School, evening division only.

Sir George Williams Elementary School, evening division only.

Sir George Williams Business School, day and evening divisions.

Sir George Williams School of Art, day and evening divisions.

The Summer Term at Sir George Williams.

The Training of Y.M.C.A. Secretaries.